1897—1898

96-97

Science Hall.

Catalogue of the West Virginia University

For 1896-1897

WEST VA. PRINTING CO., WHEELING, W. VA.

UNIVERSITY CALENDAR.

The University year consists of three terms. For the year 1897—8, these begin as follows: 1—Fall Term, Wednesday, September 1st, 1897; 2—Winter Term, Wednesday December 1st, 1897; 3—Spring Term, Tuesday, March 1st, 1898.

1897

May 27—June 4th—Final Examinations.
Saturday, June 5th, 8 p. m., Moot-Court.
Sunday, June 6th, 11 a. m., Baccalaureate Sermon.
Monday, June 7th, 2 p. m., Company Competition for Corps Colors.
Monday June 7th, 2 p. m., Regents' Prize Declamation.
Tuesday, June 8th, 2 p. m., Competitive Drill for Medals; followed by Ceremonies of Presenting Medals.
Tuesday, June 8th, 8 p. m., Annual Contest between Literary Societies.
Wednesday, June 9th, 10 a. m., Annual Commencement.
Wednesday, June 9th, 2 p. m., Public Field Sports.
Vacation—1897.
Fall Term begins September 8, Wednesday, 9 a. m.—Opened with an Address by a Member of the Faculty.
Thanksgiving Recess, November 24, Wednesday, 1 p. m.
Exercises Resumed—November 26, Friday, 8:15 a. m.
Examinations of Fall Term—November 20th—30th.
Winter Term—December 1st, Wednesday, 8:15 a. m.
Christmas Vacation—Dec. 23d, 1 p. m.—January 3d, 1898, 8:15 a. m.
Washington's Birthday—Feb. 22, 1898, Tuesday.
Examinations of Winter Term—February 19th—28th, 1898.
Spring Term Begins—March 1st, 1898, 8:15 a. m.
Examinations of Spring Term—May 27th—June 3d.
Commencement—June 8th, 1898.

Laboratory and Preparatory School.

BOARD OF REGENTS.

[BEGINNING JUNE 1, 1897.]

FOR TWO YEARS.

JAMES F. BROWN, Charleston. A. H. KUNST, Weston.
RICHARD RANDOLPH MCMAHON, Harper's Ferry.

FOR FOUR YEARS.

JAMES M. LEE, Lewisburg. JAMES L. HAMILL, Welch.
JOHN A. CAMPBELL, New Cumberland.

FOR SIX YEARS.

GEORGE C. STURGISS, Morgantown. W. E. POWELL, Parkersburg.
THOMAS C. ATKESON, Buffalo.

[BOARD RETIRING JUNE 1, 1897.]

S. F. Reed, Clarksburg. E. P. Rucker, Welch.
W. E. Haymond, Sutton. C. B. Hart, Wheeling.
James H. Stewart, Raymond City. Jas. F. Brown, Charleston.
John A. Robinson, Patterson Depot. C. L. Smith, Fairmont.
Geo. F. Evans, Martinsburg.

FACULTY.

J. L. GOODKNIGHT, D. D., PRESIDENT.

P. B. REYNOLDS, D. D.,

Professor of Metaphysics and Political Science.

JOHN I. HARVEY, A. M., PH. D.,

Professor of Modern Languages.

OKEY JOHNSON, A. M., LL. B.,

(Late President of the Supreme Court of West Virginia.)

Dean of the Law College; Professor of Constitutional, International and Corporation Laws; Criminal Laws and Criminal Procedure.

ST. GEORGE T. BROOKE, LL. D.,

Professor of Common and Statute Law.

WILLIAM P. WILLEY, A. M.,

Professor of Equity Jurisprudence and Commercial Law.

ALEX. R. WHITEHILL, PH. D.,

Professor of General and Analytical Chemistry.

JAS. W. HARTIGAN, A. M., M. D., F. S. S., F. R. M. S., G. O.,

Professor of Biology and Director of Physical Training School.

JOHN L. JOHNSTON, C. E.,
Head of the Civil and Mining Engineering School; Professor of Civil and Mining Engineering.

SAMUEL B. BROWN, A. M.,
Secretary to the Board of Regents; Professor of Geology and Mineralogy.

JOHN A. MYERS, A. M., PH. D.,
Director of the Experiment Station, and Dean of the Agricultural College.
Professor of Agricultural Chemistry.

ROBERT A. ARMSTRONG, A. M.,
Secretary and Registrar to the University Faculty.
Professor of English.

THOS. C. MILLER, A. M.,
Professor of Pedagogy and Principal of the Preparatory School.

WILLIAM S. ALDRICH, M. E.,
Dean of the College of Engineering and the Mechanic Arts; Head of the School of Mechanical Engineering and the Mechanic Arts.
Professor of Mechanical Engineering.

JAS. S. STEWART, M. S.,
Professor of Mathematics.

R. W. DOUTHAT, A. M., PH. D.,
Professor of Ancient Languages.

L. C. CORBETT, M. S.,
Professor of Agriculture and Horticulture.

CAPT. C. C. HEWITT, 19TH INFANTRY, U. S. A.,
Commandant of Cadets, and Secretary of the Preparatory Faculty
Professor of Military Science and Tactics.

A. J. HARE, A. B.,
Professor of Preparatory Ancient Languages and Mathematics.

THOS. E. HODGES, A. M.,
Professor of Physics.

W. BERNARD CUTRIGHT, A. B., B. P.,
Assistant in Preparatory School.

RUSSELL L. MORRIS, B. S. C. E.,
Assistant in Civil and Mining Engineering.

CLEMENT R. JONES, B. S. C. E.,
Assistant in Mechanical Engineering.

D. M. WILLIS,
Principal of Commercial School.
Professor of Commercial Branches.

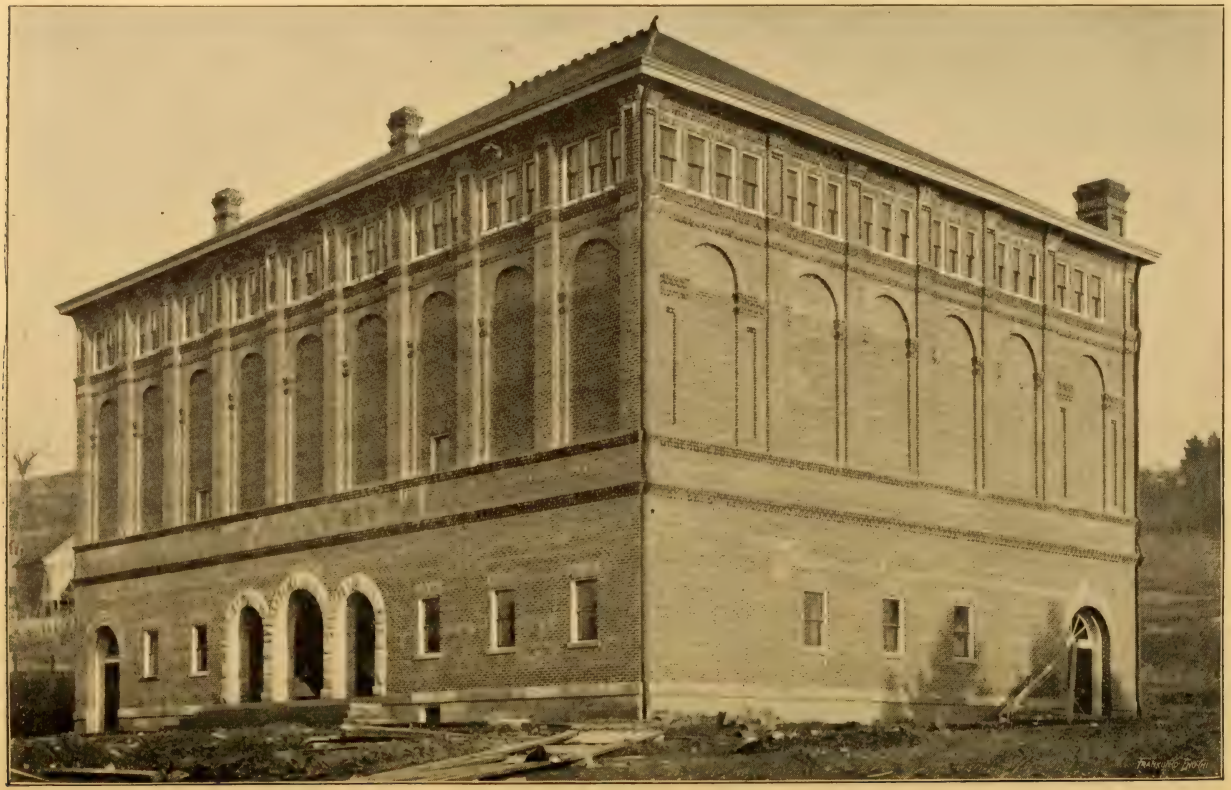
A. D. HOPKINS, PH. D.,
Professor of Entomology.

B. H. HITE, M. S.,
Professor of Organic Chemistry.

W. E. RUMSEY, B. S. AGR.,
Assistant Professor of Entomology and Economic Botany.

JAMES M. JOHNSON, M. S.,
Assistant Agriculturist.

D. J. BARTON,
Assistant in Preparatory School.



Commencement Hall and Gymnasium.

WAITMAN BARBE, M. S.,
Field Agent of the University.

MISS CLARA HOUGH,
University Librarian.

Experiment Station.

OFFICIAL STAFF.

JOHN A. MYERS, PH. D.....Director.
L. C. CORBETT, M. S., M. AGR., Agr. and Hort. and Microscopist.
B. H. HITE, M. S..... Chemist.
T. F. WATSON.....Assistant Chemist.
A. D. HOPKINS, PH. D.....Entomologist.
W. E. RUMSEY, B. AGR.....Assistant Entomologist.
JAMES M. JOHNSON, M. S.....Assistant Agriculturist.
MISS M. E. HEERMANS.....Stenographer and Bookkeeper.
MRS. M. S. HOUSTON.....Librarian.

The Athenaeum.

E. A. BROOKS and H. L. SWISHER, *Editors and Managers.*

THE UNIVERSITY.

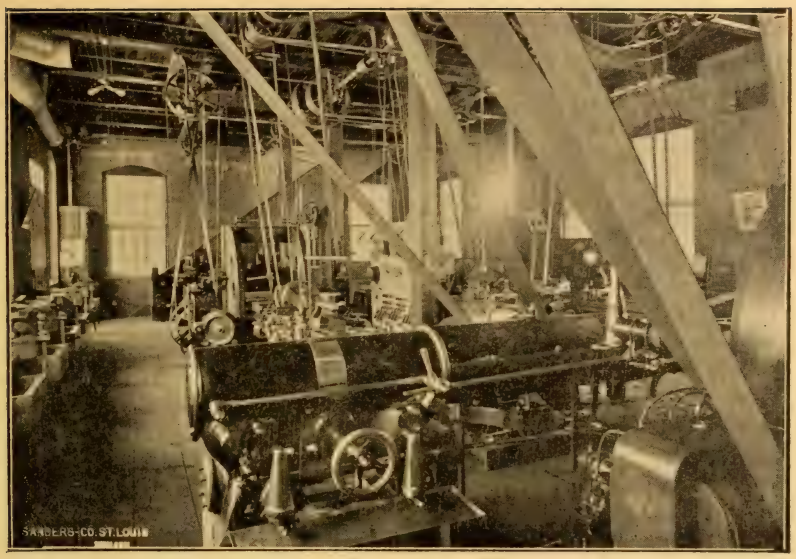
ORIGIN.

The West Virginia University (successor to Monongalia Academy, founded in 1814) was established by act of the Legislature, February 2, 1867, and was called "The West Virginia Agricultural College." The proceeds of the State's share of the "Public Land Script," donated by Congress to the several States under the act of July 2, 1862, providing for the establishment in each State of an Agricultural College, were given to this College, and constituted a part of the endowment fund. By a subsequent act of the Legislature, the name of the institution was changed to "West Virginia University." Authority was given to the Board of Regents to establish professional Colleges and Schools, and to enlarge the scope of the work to that of a University.

LOCATION.

The University has an ideal location, at the most beautiful spot on the Monongahela river, in a community pure and healthful morally, physically and intellectually. There are strong churches of the various denominations in the town and a Y. M. C. A. in the University. There are no saloons in the town and have been none for several years. The town has the advantages of pure, soft mountain water and an abundance of natural gas and electric lights.

Morgantown is on the Fairmont, Morgantown and Pittsburg railroad, connecting it southward at Fairmont and Grafton with all railroad lines running through the State, and northward with Pennsylvania routes. Daily packets run from Pittsburg to Morgantown, on the Monongahela river.



Metal-Working Room, Mechanic Arts Building.

The President's Office.

PLANT.

1. GROUNDS.

The University grounds, about eighteen acres in extent, occupy an elevated and healthful position overlooking the Monongahela river and command a beautiful view of the surrounding country. They afford a campus, sites and surroundings for the various buildings, grounds for the military drill and out-door athletics, groves, etc. The University has a farm a short distance from the town, in connection with the Experiment Station.

2. BUILDINGS.

There are six principal buildings, all of brick and four new. They are admirably adapted to their purposes and have cost, with their equipments, more than $250,000. They are the following:

(1.) Two large buildings, three stories and a basement each, for class rooms, Library, Biological Department, Museum, Society Halls, Offices, etc.

(2). The Scientific Building, finished and equipped in the summer of 1893, affords lecture rooms, laboratories, etc., for the departments of Chemistry, Physics, Geology, and Civil Engineering.

(3.) The Mechanical Hall affords shops, machinery, appliances, etc., for instruction in Mechanical Engineering and the Mechanic Arts. An addition made to this building doubles its capacity. The machinery cost $50,000 or more.

(4.) The Commencement Hall furnishes room for a commodious and beautiful Chapel, a Drill Hall and a Gymnasium.

(5.) The Agricultural Experiment Station is a part of the University, and forms, with its libraries, laboratories, and other equipments,

an invaluable adjunct to the University. This building has been remodeled and is one of the handsomest and best equipped Experiment Stations in the United States.

A large wing to University Hall will be constructed the coming summer.

EQUIPMENT.

The apparatus for instruction in Civil, Mining and Mechanical Engineering, Chemistry, Physics, Biology and Geology, has been made to order and is pronounced by experts to be equal to the best in the country. The apparatus for the various other departments is being constantly increased and improved.

The Library contains standard works in all departments of literature, books of reference needed in all branches of work in the University, and a Reading Room furnished with the best papers and magazines. Additions are made to the library every year.

The Gymnasium is fitted up with the best modern appliances; is under the management of a competent director, and is provided with all the facilities necessary for exercise and physical development.

The Experiment Station has organic connection with the University, and its able director and staff, its equipment, its chemical, botanical, entomological, horticultural and agricultural work and experiments are a part of the facilities for education at the University.

FUNDS.

Funds for maintaining the University are derived from the interest on an endowment of $114,750, from biennnial appropriations made by the State Legislature, and from the "Morrill Fund" appropriated by act of Congress August 30, 1890, for the further endowment of Agricultural Colleges, from which the University receives this year, after deducting the amount that goes to the support of the State Institute for colored youth, the sum of $18,000, and which will yield $20,000 per year for University support after one more year..

REQUIREMENTS.

1. ADMISSION.

In order to be admitted to the courses in the Colleges, candidates must stand a satisfactory examination in the studies preparatory to such courses, or otherwise give sufficient evidence of the necessary proficiency in them.

Graduates of the Academic Department of the Normal School or any of its branches, or from approved High Schools and Academies, may be admitted to Collegiate courses upon presentation of a proper certificate of such graduation.

Students who wish to take "advanced standing" in college courses, upon credit for work done elsewhere, must apply to the Deans of the various Faculties for permission to take such standing, and then must satisfy the professors in whose course they wish credit given, by examination or otherwise, that they have done the work required in these courses or a full equivalent therefor.

A candidate must get from the President a written permit to matriculate, must have the Treasurer's receipt for the payment of all dues, must be admitted to the required number of classes and have the certificates of professors that he is so admitted and must be enrolled by the Registrar of the University Faculty, before enrollment in any class.

Matriculation is a pledge to obey the rules and regulations of the University and it will be so construed and the matriculate required to fulfill it.

The student must obtain the President's permission to enroll for every term, must obtain the Treasurer's receipt for all fees for each term and be enrolled by the Registrar for that term, before he will be allowed to go on with the studies.

Students must enroll immediately upon their arrival at the University, and re-enroll promptly at the beginning of the terms, or render a satisfactory reason for the delay.

Female students are admitted under the same regulations as male students, except that they are not permitted to take the studies of the Preparatory School.

WORK.

Students must select their studies under the direction of their advisers and may not have fewer than fifteen and not more than twenty-two recitations per week, unless they have special permission to take a smaller or a larger amount of work.

Students must enter one of the regular courses, unless they are permitted for good reasons to take an irregular or special course.

Students must pursue the courses they have entered and remain in the classes in which they have enrolled, until they have the consent of their advisers or are permitted to change or abandon their work by the proper College Faculty. All such changes must be reported to the President that he may report them to the University Faculty. No change of courses is allowed during a term.

GRADES.

Any student who shall be absent from examination on account of protracted sickness, or other unavoidable cause, shall not be required to be examined in any study in which his term grade is 8:50 or above, provided that the character of the absence shall be decided by the Faculty; and this exemption shall not apply to more than a single term in any year. In such cases the examination mark shall be the average of the examination marks for the other two terms.

All absences from recitations shall count against the student in his class standing; except that any student may be excused for absences from any class equal to one-tenth of the exercises of that class for a term, upon rendering to the Faculty a sufficient excuse, and making up the work of the classes from which he was absent.

In order to be promoted from a lower to a higher class, or to get credit for having completed any subject in any course, students must make an average of 7 on a scale of 10 for each term given to the subject.

Grades are made up from an average of recitation and examination values, each counting one-half.

Interior of Chapel.

Examinations are held at the close of each term, and at such other times as professors may deem necessary. The time allowed for each examination is not less than three nor more than five hours. Upon failure to pass, a second examination will be granted only by special permission of the proper faculty.

4. DISCIPLINE.

The rules and regulations which students are required to observe are few, simple and reasonable. Punctuality and regularity in attendance upon all required exercises; reasonable diligence in the performance of the work prescribed; abstinence from drinking, gambling and like gross vices; and civil, orderly conduct generally. These are deemed sufficient, and are all that will be exacted.

Students who can not, or will not, comply with these requirements will not be allowed to remain in the University. Offenders will be warned, and will be given reasonable time to correct their conduct; if they do not amend, they will be dismissed.

ADVISERS.

Every student is assigned to a certain Professor as his adviser who will council and direct the student in all matters pertaining to his studies. The adviser will be a personal friend to the students assigned to him. Each student will consult his adviser as to the course of study best suited to the student. No student will be permitted to change his course of study without the permission of his adviser. The conduct of the student while at the University will be under the immediate supervision of his adviser.

5. RELIGIOUS WORSHIP.

All students are required to be present at roll-call but are not required against their conscience to remain for the religious exercises, although they are urged to stay. Students are also expected to attend some church at least once on the Sabbath.

The different denominations have their churches, pastors and Sunday schools in the town, and these are means of good influence over the students.

Parents can give special instructions concerning religious matters in reference to their children who are minors, and all reasonable instructions will be carried out.

AUXILIARIES.

1. REGENTS' PRIZES.

The Regents' Prize of $25.00 for Essay is given to any member of the regular University departments, who shall write the best essay on a subject selected by the Faculty. The prize is awarded by a committee of citizens chosen by the Faculty, under the following regulations:

1. The manuscript of each competitor shall be in his own handwriting.
2. Each essay shall have a fictitious signature, and be accompanied by a sealed letter containing both the fictitious and real name of the writer.
3. Essays shall not be less than fifteen nor more than twenty-five minutes in length.
4. The successful competitor shall read his essay in public at such time as the Faculty may direct.

The Regents' Prize, $15.00, for Declamation will be presented to any student whose studies are principally in the Preparatory School, for the best declamation. The award is made by a committee appointed by the President of the University.

Mr. J. W. Wiles, class of 1894, a prominent real estate dealer in Morgantown, has offered a permanent prize of $20.00 for the best Oration in the Preparatory School.

2. ATHLETICS.

Besides the regular course in Physical Training and optional Gymnasium courses, sufficient attention is given to and sufficient provision

University Foot Ball Team.

University Base Ball Team.

is made for base-ball, foot-ball, and other athletic sports, in both home and inter-collegiate exercises, to meet all the requirements for a due degree of physical development. A student is required to make the study grades in order to retain a place on any athletic team.

3. LIBRARY AND READING ROOM.

Students will find great advantage in using as extensively as possible the Library and Reading Room. These are open every day in the week during University hours—8:30 to 12:00, and 2:00 to 5:00. They are free to all students who comply with the regulations. These regulations are posted in the Library, or can be obtained of the Librarian. The Library and Reading Room of the Agricultural Experiment Station are open to all students who comply with the rules and regulations of this Library.

There are special Libraries for most of the schools in the various colleges, open for reference. These hav been supplied with books especially adapted to each particular school.

4. LITERARY SOCIETIES.

There are in connection with the University, two flourishing literary societies, the Parthenon and the Columbian. The exercises, consisting of compositions, readings, declamations, orations, debates and criticisms, are invaluable to students. These societies have an annual contest, during Commencement week, in declamation, essay, oration, and debate, for prizes aggregating $100. All students should connect themselves with one of these societies, and perform faithfully all the work required of the members. The Society Halls are handsomely furnished.

5. ENGINEERING SOCIETY.

The object of this society is to encourage the investigation of and facilitate an acquaintance with and mastery of engineering topics. Its exercises, consisting of essays, discussions, original researches, etc., are of great value to students pursuing a course in engineering.

6. Y. M. C. A.

The Young Men's Christian Association is doing, successfully, an important work. It is in a flourishing condition and is very active. The Faculty recognize its great service in maintaining the discipline of a high standard of character in the University. It meets every Friday evening, from 6 to 7 o'clock, for devotional exercises and business. Students who are seeking the highest culture, should connect themselves with this Association and engage actively in all its work. There is a special Hall furnished and set apart exclusively for this Association.

Parthenon Society Hall.

EXPENSES.

1. TUITION.

Tuition is free to West Virginia students in all the departments of the University. Students from other states are charged $5.00 per term in the Preparatory School, $8.00 per term in the Law College and $12.50 per term in other University courses and Colleges.

2. FEES.

The matriculation fee is $5.00, payable upon entering the University by all students. The contingent fee for each term is $2.00, payable at the beginning of the term. State Cadets are exempted from these fees. The other fees are a laboratory fee of $2.00 for students in general chemistry; a fee of $5.00 for students in special anatomy, to cover cost of material used; a fee of $20.00 for students in analytical chemistry, to cover the cost of materials; a fee of 50 cents per term for Dispensary, the payment of which secures free medical attendance during the stay of a student at the University as a student; and a fee of $5.00 for a diploma upon graduation. Unless a student remains out of the University over three years, the matriculation fee is paid only once.

3. BOARD AND LODGING.

Furnished rooms cost each student 75 cts. to $1.25 per week. The average is $1.00 per week. Students lodge with private families. Board, in students' clubs, costs from $1.75 to $2.25 per week; in private families, from $2.00 to $3.00 per week.

EPISCOPAL HALL.

Bishop Peterkin, of the Episcopal Church, has established a Hall where students may find a home. This is in charge of the resident Rector, Rev. Mr. Sheerin. Students of all denominations are admitted, so long as there is room. Parents and students will do well to write to the Rector for terms and places.

It is desired and expected that other denominations will establish like Halls in the near future. This would be the satisfactory solution of the dormitory question in connection with State Universities. The Baptist General Association of West Virginia has adopted resolutions looking to the founding of a similar Hall.

No greater moral and spiritual blessing could come to the State Universities than to be surrounded by a system of denominational halls to take care of the social and moral life of the young people who gather in such numbers at the State Universities. It is time the various denominations should come to the students already in the State Universities as well as try to bring students to denominational colleges. It will cost the denominations far less to do the former than the latter. Denominations can not afford to neglect their membership and adherents among the State University students.

5. INCIDENTALS.

Lights, washing, text-books and incidentals cannot be fully estimated, but will cost as little as at any other school of the same grade. Washing costs about $1.00 per month. The cost of incidentals depends largely upon the tastes and habits of the student.

State Cadets get the use of their text-books and stationery free.

6. ESTIMATE FOR A YEAR.

Room rent	$27.00 to $45.00
Board	63.00 to 90.00
Washing	9.00 to 13.00
Incidentals	20.00 to 30.00
Text-Books	8.00 to 30.00
Contingent fees	7.50 to 7.50
	$134.50 to $215.50

Episcopal Hall.

The Circle.

To this must be added matriculation and tuition fees if they are required, and travelling expenses, clothing, etc.

Text-books are kept for sale at the University, and are furnished to students at cost.

ORGANIZATION.

"The great function of a University," says Fitch, an eminent English educator, "is to teach, and to supply the world with its teachers." Doubtless in this statement, he means to refer to all kinds of professional work, as law, medicine, theology, agriculture, engineering, commerce, etc.; but in a larger sense is this true of the work of a University as it stands related to the direct instruction of the school room, which necessarily lays the foundation for all intellectual pursuits. From the academies, seminaries, normals and high schools, come the young men and women who enter our higher institutions of learning and who afterwards go out as leaders in thought and action. The Universities supply the secondary schools with their instructors, and these schools in turn feed the Universities. How much friction may be avoided; how many irregularities corrected; how much valuable time saved, by having a proper adjustment and correlation of all these educational forces.

This University is organized into Colleges. These are divided into Schools, and the Schools into Departments.

There are four Colleges: Academic College, with a special Department in Medicine; Agricultural College; Law College; Engineering College; and four Schools: Physical Training, Military, Pedagogy and Commercial Schools. For a complete and detailed description of each and its work, examine the announcements of the several Colleges and Schools in their appropriate places in this catalogue.

The Preparatory School is primarily for fitting students to enter the several Colleges of the University.

DEGREES.

The folowing are the degrees in course conferred by the University:

1. Bachelor of Arts.
2. Bachelor of Arts in Law.
3. Bachelor of Science.
4. Bachelor of Laws.
5. Bachelor of Science in Civil Engineering.
6. Bachelor of Science in Mechanical Engineering.
7. Bachelor of Science in Agriculture.

The course of study leading to each of the above degrees, except that of Bachelor of Laws, covers a period of four years. The course of study leading to the degree of Bachelor of Laws extends over two years.

GENERAL REMARKS.

The seventy hours work required for the degrees of A. B. and B. S. must be made up of forty hours in minor courses and thirty hours in major courses, including the prescribed work; but by permission of the Faculty of the College of the Arts and Sciences, special courses may be substituted for ten hours' work in major courses not prescribed.

No student will be allowed to take fewer than fifteen nor more than twenty-two hours work without special permission of the Faculty of the college in which he is enrolled.

In case a student is admitted to the first year's work in any College of the University, but is prevented from taking some part of it on account of lack of preparation, he shall be required to make up such deficiency by taking the proper studies in the Preparatory School before taking work in advance of the first year.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS.

This degree requires a minimum of seventy hours* work in the College of Arts and Sciences; forty hours of which are prescribed; the remaining thirty hours may be elected by the student from the courses offered in the various schools of the College.

The work required is as follows:

Mathematics,..... 5 hours.
English..... ...10 hours.
Physics, ... 2½ hours.
Chemistry,..... 2½ hours.

Greek, 10 hours, / Latin, 10 hours } or { Latin, 5 hours. / Modern Languages, 10 hours. / Greek, 5 hours,

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE.

This degree requires a minimum of seventy hours work in the College of Arts and Sciences, forty-two hours of which are prescribed, and twenty-nine hours are elective. The prescribed work is:

Mathematics..... .....10 hours.
English..... 5 hours.
Modern Languages..... .....10 hours.
Physics.... ..... 4½ hours.
Chemistry.... ..... 4½ hours.
Botany..... 2 hours.
Zoology..... 3 hours.
Geology..... 3 hours.

DISTRIBUTION OF THE WORK FOR THE DEGREE OF A. B.

Period.	1st Year.	Hrs.	2d Year.	Hrs.	3d Year.	Hrs.	4th Year.	Hrs.
8:15	I English [1]	3	Elective.....	5	Elective.....	5	II English..	2
9:15	I Physics†	2½						
	Chemistry.....	2½	II Anc. Lan.	5	Elective	5	I German*	5
10:30	I Mathematics	5	I English [2]	2	II English[1]	3	Elective.....	5
11:30	I Anc. Lang ...	5	Elective	5	I French‡	5	Elective.....	5
1:30	Laboratory, Physics or Chemistry—Elective.							

‡If Ancient Languages are continued through the third and fourth years, other subjects may be elected in place of French and German.

†Fraction of hour occurs by recitations on alternate days.

*The word "hour" as here used means one class exercise or its equivalent in laboratory work, each week throughout the year.

DISTRIBUTION OF THE WORK FOR THE DEGREE OF B S.

Period.	1st Year.	Hrs.	2d Year.	Hrs.	3d Year.	Hrs.	4th Year	Hrs.
8:15	I English [1]	3	II Mathematics	5	Elective	5	Elective	5
	I Chemistry‡.	2½	1 Zoology	2				
9:15	I Physics [1]	2½	I Field Botany	2	I German	5	Elective	5
10:30	I Mathematics	5	I English [2]	2	I Geology[1	3	Elective	5
11:30	I French	5	Elective	2	Elective	5	Elective	2
			II Physics	2				
1:30			II Chemistry	2				

‡Fraction of hour occurs by recitation on alternate days.

SCHEDULE COLLEGE OF THE ARTS AND SCIENCES.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
8:15	Anatomy. I English. (1) II Mathematics. II German. ..... I M. & P. Sci. (1)	Anatomy. II English. (2) II Mathematics. II German. II Geology. (2) I M. & P. Sci. (2)	Anatomy. I English. (1) II Mathematics. II German. ..... I M. & P. Sci. (2)	Anatomy. II English. (2) II Mathematics. II German. II Geology. (2) I M. & P. Sci. (2)	Anatomy. I English. (1) II Mathematics. II German. ..... I M. & P. Sci. (1)
9:15	I Chemistry. II Anc. Lang. (1) I German. Zoology.	I Physics. II Anc. Lang. (2) I German. Field Botany.	I Chemistry. II Anc. Lang. (1) I German. Zoology.	I Physics. II Anc. Lang. (2) I German. Field Botany.	I Chemistry. II Anc. Lang. (1) I German. Zoology.
10:30	I Mathematics. II English. (1) I Geology. (1) II M. & P. Sci. (1) II French.	I Mathematics. I English. (2) I Geology. (2) II M. & P. Sci. (2) II French.	I Mathematics. II English. (1) I Geology. (1) II M. & P. Sci. (1) II French.	I Mathematics. I English. (2) I Geology. (2) II M. & P. Sci. (2) II French.	I Mathematics. II English. (1) I Geology. (1) II M. & P. Sci. (1) II French.
11:30	I Anc. Lang. (1) I French. II Geology. I Advanced Biology.	I Anc. Lang. (2) I French. II Physics. Advanced Biology.	I Anc. Lang. (1) I French. II Geology. (1) Advanced Biology.	I Anc. Lang. (2) I French. II Physics. Advanced Biology.	I Anc. Lang. (1) I French. II Geology. (1) Advanced Biology.
1:30	Lab. Physics.	Lab. Chemistry.	Lab. Physics.	Lab. Chemistry.	.....

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN CIVIL ENGINEERING.

This degree requires eighty-five hours work in the University, of which forty-one hours are in the College of the Arts and Sciences, and the remainder in the Schools of Civil and Mechanical Engineering, including shop work and drawing, laboratory work, and field practice of these schools. All work is prescribed.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING.

This degree requires eighty-five hours work in the University, of which forty-one hours are in the College of the Arts and Sciences, and the remainder in the Schools of Mechanical Engineering and the Mechanic Arts and of Civil Engineering, including shop work and drawing, laboratory work and field practice of these schools.

All of the work is prescribed.

DISTRIBUTION OF THE WORK FOR THE DEGREE OF B. S. C. E.

Period.	1st Year.	Hrs.	2d Year.	Hrs.	3d Year.	Hrs.	4th Year.	Hrs.
8:15	English	3	II Math	5	Mechanics	5	Appl'd Math	5
9:15	Chem Phys	2½ 2½	Des. Geom. and Survey'ng	5	I German	5	Appl'd Math and Mining	5
10:30	I Math	5	English Geology	2 3	R. R. Loca.	3	Civil Eng Metallurgy	5
11:30	French	5	Inst. Drawing II Physics	2 2	Geology	3	Graphic Statics	1
1:30	Free Hand Dr Mech. Arts	2 1	Physics Chem	1 2	Mech. Dr. Field Pr.	2 2	Mech. Dr. Eng. Lab	2 1
Sat	Ph. Lab	1	Field Practice	1	Eng. Lab	1		

DISTRIBUTION OF THE WORK FOR THE DEGREE OF B. S. M. E.

Period.	1st Year.	Hrs.	2d Year.	Hrs.	3d Year.	Hrs.	4th Year.	Hrs.
8:15	I English [1]	3	II Math	5	Mechanics	5	Engineering	3
9:15	I Chemistry I Physics	2½ 2½	Des. Geom Mech Tech	3 2	I German	5	Steam Eng'g	5
10:30	I Math	5	I Geology I English [2]	3 2	Engineering	2	Elect. Eng'g Des. Mach'y.	3 2
11:30	I French	5	II Physics	2	Ap. Math & Geology	3		
1:30	Free Hand Drawing Mech. Arts	2 1	Phys. Lab'y Chem. Lab'y Mech. Arts Dr. & Design	1 2 1 1	Elec. Meas Engineering Mch. Arts Drawing & Design	1 1 1 2	Elect. Lab'y Engineering Mech. Arts Dr. & Design	1 1 1 2
Sat. 8 a. m.	Phys. Lab'y	1	Mech. Arts	1	Eng'g Lab'y.	1	Mech. Lab'y	1

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS IN LAW.

This degree requires a minimum of fifty hours work in the College of the Arts and Sciences, in addition to the regular course for the degree of Bachelor of Laws. Of the fifty hours in the College of the Arts and Sciences, thirty-two are prescribed and eighteen are elective. The prescribed work is:

Mathematics..... 5 hours.
English..... 10 hours.
Ancient Languages (or Latin only)..... 10 hours.
Moral and Political Science..... 5 hours.
Chemistry..... 2½ hours.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF LAWS.

The course leading to this degree extends over a period of two years; provided that a student may undertake to complete it in one year if he feels himself competent to do so, and he will be awarded the degree at the end of that time if his average standing in all the branches is not below 9, on a scale of 10.

The following are the Junior and Senior divisions of the course:

JUNIOR—Common Law, Statute Law, Blackstone; Torts, Criminal Law, Criminal Procedure, Contracts, Agency, Bailments, Insurance, International Law, Parliamentary Law.

SENIOR—Common Law Pleading, Real Property, Negotiable Paper, Partnership, Suretyship and Guaranty, Evidence, Equity Jurisdiction, Equity Pleading and Practice, Corporations, Constitutional Law, Practice in the Courts.

DISTRIBUTION OF THE WORK FOR THE DEGREE OF A. B. L.

Period.	1st Year.	Hrs.	2d Year.	Hrs.	d Year.	Hrs.	4th Year.	Hrs.
8:15	I English [1]	3	Law	3	Law	3		
			I M&P Sci[1]	3	I M&P Sci[2]	2	II English[2]	2
	I Chemistry*	2½						
9:15	Elective	2½			Law or...		Law or...	
			II Anc. Lang	5	Elective...	3	Elective...	5
10:30	I Mathemat.	5			II English[1]	3	Law or...	
			I English [2]	2	Law	2	Elective...	5
11:30	I Anc. Lang.	5	Law or...		Law or...		Law or...	
			Elective...	5	Elective...	5	Elective...	5
P. M.								

*Fraction of hour occurs by recitations on alternate days.

DISTRIBUTION OF THE WORK FOR THE DEGREE OF LL. B.

(TWO YEARS' COURSE.)

First Year.

Time	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
8:15 ...		Com. Law.....		Com. Law.....		Com. Law.....
9:15 ...		Contracts.....		Contracts.....		Par. Law.....
10:30..	Inter. Law....		Crim. Law....		Crim. Law....	
11:30..						

Second Year.

Time	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
8:15 ...	Pleading.....		Pleading.....		Pleading.....	
9:15 ...	Equity		Equity		Contracts.....	
10:30..		Corporations.		Consti. Law..		
11:30..			Evidence			

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN AGRICULTURE.

To obtain the degree B. S. in Agriculture a student must satisfactorily pass examination in eighty-five hours work, forty-two of which are in the College of Arts and Sciences, four in the Engineering College, and the remaining thirty-nine hours, including laboratory and field practice, but not including military training, are given in the College of Agriculture.

SCHEDULE OF RECITATIONS IN AGRICULTURAL COLLEGE.

First Year.

Time	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
8:15 ...	I Eng.[1] Sec	Agriculture...	I Eng. [1]	Agriculture...	I Eng [1]	Pract. Agr...
9:15 ...	Chem & Phy 1	Chem&Phy[1	Chem&Phy[1	Chem&Phy[1	Chem&Phy[1	" "
10:30..	Math. [1]	Math. [1]	Math. [1]	Math.]1]	Math. [1]	" "
11:30..						" "
1:30....	Phys. Lab....	Chem. Lab...	Phys. Lab....	Chem. Lab....	(Lit. Soc.).....	
	Military.....	Military.....	Military..			

Second Year.

Time	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
8:15 ...	Horticulture.		Horticulture.		Horticulture.	Biology .....
9:15 ...	Zoology	Field Botany	Zoology	Field Botany	Zoology	
10:30..	Geology	Min. Eng. 2d Sec.	Geology	Min. Eng. 2d Sec.	Geologoy	
11:30..	Agr. Chem...	Agr. Chem...	Organ. Chem	Agr. Chem...	Organ. Chem	
1:30....	Fr. Hand Dr.	Prac. Hort....	Fr. Hand Dr.	Prac. Hort....	(Lit. Society)	
	Military.....	Military.....	Military.....			

Third Year.

Time	Monday.	Tuesday.	Wednesday	Thursday.	Friday.	Saturday.
8:15 ...	Animal Ind. & Dairying	Maj. Eng. 2d Sec.	Animal Ind. & Dairying	Maj. Eng. 2d Sec.	Animal Ind. & Dairying	Farm &Gard.
9:15 ...	Ger.or French	Ger. or Fr.....	Ger. or Fr.....	Ger. or Fr.....	Ger. or Fr.....	
10:30..		Econ. Geol.....		Econ. Geol.....		
11:30..	Ent. and Bot.		Ent. & Bot...	Econ. Bot'ny.	Ent. and Bot.	
1:30....	Live Stock & Poultry	Nat. His Lab	Live Stock & Poultry	Nat. His. Lab	Farm &Gard.	
	Military.....	Military.....	Military.....		(Lit. Soc.).....	

Fourth Year.

Time	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
8:15 ...	Sci. Ger. or Fr	Forestry.....	Sci. Ger. or Fr	Forestry.....	Sci. Ger. or Fr.	
9:15 ...	Advan. Agr.	Surveying.....	Advan. Agr.	Surveying	Advan. Agr.	
10:30..	Hist. & Sci. Gov.	Polit. Econ.	Hist. & Sci. Gov.	Polit. Econ...	Hist. & Sci. Gov.	
11:30..	Elective.....	Elective.....	Advan. Hort.	Adv. Hort....	Elective.....	
1:30....	Stati'n Meth.		Stat'n Meth.		Stati'n Meth.	Thesis upon Orig. Work
	Military.....	Military.....	Military.....			

Students not working for a degree but wishing to secure the technical training of the Agricultural College can do so by taking the Short Course in Agriculture which extends through one year, for which a certificate will be given upon passing satisfactory examinations; or a student may study any particular technical branch in the Agricultural course at the regular hours, and upon passing satisfactory examinations receive a certificate.

SHORT COURSE IN AGRICULTURE.

Time	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
8:15 ...	Horticulture.	Agriculture...	Horticulture..	Agriculture ..	Horticulture..	Pract.....
9:15 ...	Animal Ind. & Dairying	Field Botany	Animal Ind. & Dairying	Field Botany	Animal Ind. & Dairying	Agriculture...
10:30..	Bot. & Ent...	Econ. Geol.....	Bot. & Ent....	Econ. Geol.....	Bot. & Ent...	"
11:30..	Agr. Chem...	Organ. Chem	Agr. Chem...	Organ. Chem	Agr. Chem...	"
1:30....	Animal Ind	Horticulture..	Dairy Lab....	Horticulture..	Library.....	"

COURSES OF INSTRUCTION IN THE VARIOUS SCHOOLS AND COLLEGES.

PREPARATORY SCHOOL.

FACULTY.

J. L. GOODKNIGHT, D. D., President.
THOS. C. MILLER, A. M., Principal.
A. J. HARE, A. B.
J. W. HARTIGAN, A. M., M. D.
W. B. CUTRIGHT, A. B.
DENNIS M. WILLIS.
CAPT. C. C. HEWITT, 19th Infantry, U. S. A.
D. J. BARTON.

The Preparatory School is maintained to prepare young men for the various courses of the University, and it offers excellent opportunities for both mental and moral developement under helpful guidance. Those who have not the advantages of an Academy or good High School near home, may here receive instruction in any of the common branches, thus fitting themselves either for college or business life. Usually most of the students in this school are enrolled in the Cadet Corps, and the habits of neatness, accuracy, and of mental and bodily discipline inculcated therein, are an in valuable part of a young man's training.

Students who are deficient in only one or two branches of this School, may, while finishing this work, take some College studies. But all the required work of the Preparatory course must be completed before a student is permitted to go on regularly into any University course. Those who do not expect to take a course in the Uni-

versity will be given such studies as they are able to pursue successfully, so far as such studies are provided for in the courses and do not interfere with any of the regular work of the Schools.

The control of this School is vested in a Preparatory Faculty, consisting of the President, the Principal and his assistants, the Commandant of Cadets and the Instructor in Physical Culture. All students in this School are under the control of this Faculty so far as their work is in this School. All matters of discipline involving suspension or expulsion from the University are determined by the proper University authority.

ADMISSION TO PREPARATORY SCHOOL.

For admission to this School, applicants must be at least fifteen years of age, and they should present a certificate of scholarship from their last instructor or the last school with which they are connected. They should be proficient in the ordinary course of study pursued in the public schools of the State, and especially in English grammar and arithmetic. No regular examination is required for admission to the classes of the Junior year, the student being admitted on trial; if he is not able to pursue the course successfully, he is required to withdraw. Students desiring to take the studies of the Senior Preparatory year will be examined as to their ability to enter the classes of that year, unless they otherwise satisfy the Principal that they are qualified for entrance.

No student will be permitted to enter any higher class or section until he shall have passed in the lower, or shown by special examination that he is able to go on satisfactorily.

The work in this School is so arranged as to enable students to take the course in the shortest time consistent with the attainment of the required proficiency. Students who, upon entering, can take advanced standing, and who are capable of making good progress may finish the course in one year. When they do not lack much of the course, they may even finish it in one or two terms. Students who must take the course from the beginning, and who cannot make rapid progress, may find it necessary to give two years or even more, to the work of this School. In order that a student may complete the mathematics of this school in two years, he must be well along in arithmetic and it will be better that he possess some knowledge of algebra. The average student who must spend more than half his first year in arithmetic cannot satisfactorily complete the algebra and geometry required in the remainder of the time allotted.

On Examination in the Preparatory School.

CLASSIFICATION AND GRADING.

The classes of the Junior preparatory year are usually taught in two, three or more sections; at the end of each term the sections are rearranged according to scholarship, and those who are not proficient are required to go over the work again, or are given special instruction adapted to their needs.

Recitations are estimated on a scale running from 10 to 0; 10 being perfect and 7 passable. A student falling below 7 in his average standing, which is reckoned from his daily class marking and his term examination, will be required to take the same subject again.

SCHEDULE OF RECITATIONS.

As all the sections of each branch of study cannot recite at the same hour, the schedule will be arranged when the classes are formed. As far as possible, the following order will be observed:

First Hour, 8:30, Mathematics.
Second Hour, 9:30, English.
Third Hour, 10:30, Second Latin; El. Science, and History.
Fourth Hour, 11:30, First Latin.
Drawing and Mechanic Arts, afternoons and Saturdays.

COURSE OF STUDY IN THE PREPARATORY SCHOOL.

The course of study in this school is based upon the following general outline:

ENGLISH.

Junior Year: English Grammar, Whitney, 5 hours a week, half the year. Analysis, Reed and Kellogg, 5 hours a week, half the year.

Senior Year: Elements of English, Lockwood, 5 hours a week, half the year. Composition and Rhetoric, Waddy, 5 hours a week, half the year.

Ability to analyze and parse English sentences correctly, and to apply the rules for orthography, the use of capitals, punctuation, invention, etc., in ordinary composition, is the standard required.

MATHEMATICS.

Junior Year: Arithmetic, Greenleaf, 5 hours a week, half the year. Algebra, Milne, 5 hours a week, half the year.

Senior Year: Algebra, Wells' University, 5 hours a week, half the year. Plane Geometry, Wells, 5 hours a week, half the year.

Proficiency in Algebra to Logarithms or Theory of Equations and in Plane Geometry is the standard required.

LATIN.

Junior Year: Latin Lessons, Chase and Stuart, 5 hours a week throughout the year.

Senior Year: Reading from Caesar, Cicero and Virgil, with constant drills in forms and exercise writing, 5 hours a week, throughout the year.

Ablility to read ordinary Latin prose and poetry, to explain grammatical forms and give rules for ordinary Latin constructions, and to apply the rules for forms and constructions in writing ordinary Latin prose exercises, is the standard required.

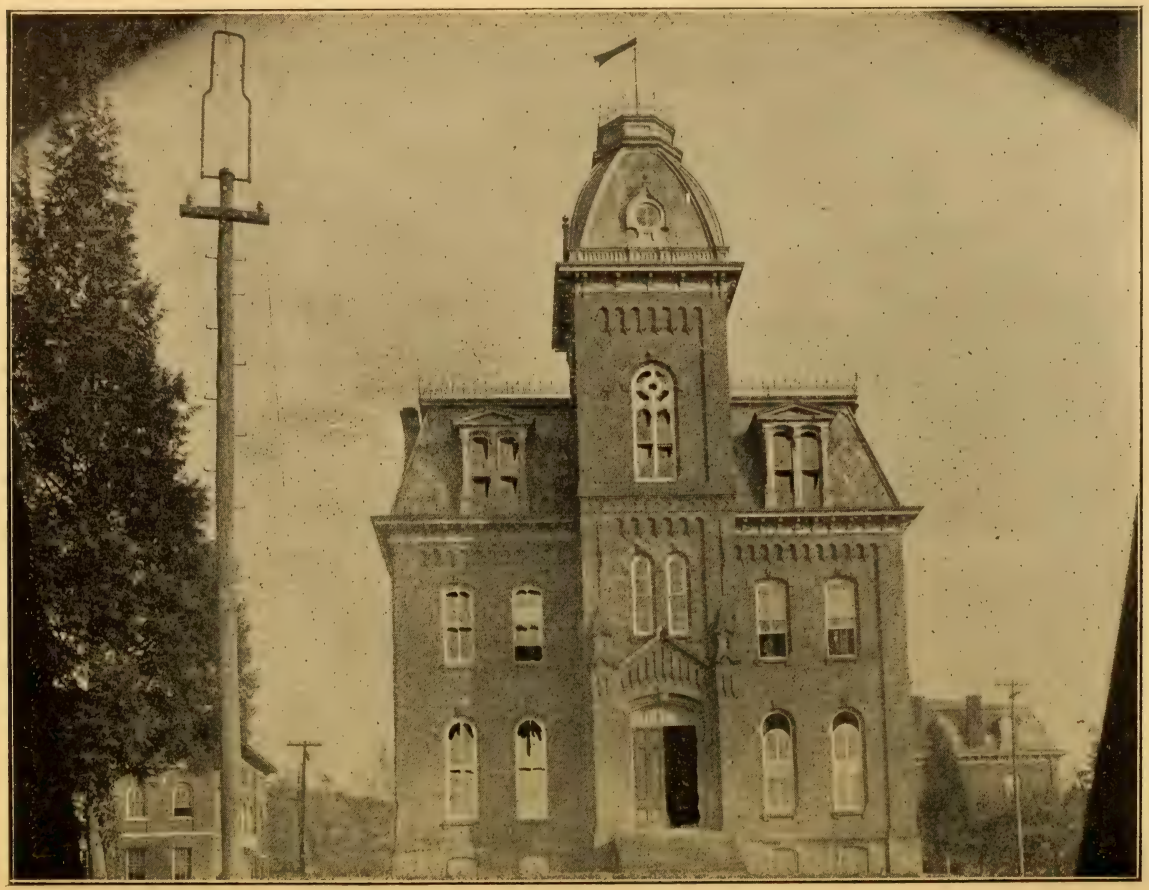
In addition to the above, or as a substitute for Latin, all students preparing for the Agricultural and Engineering Courses are required to take the following:

Junior Year: U. S. History, 3 hours a week. Elementary Bookkeeping, 2 hours a week throughout the year.

Senior year: Botany, Physiology and Hygiene, 3 hours a week. Physical Geography, 2 hours a week, throughout the year. Industrial Drawing, 1 exercise a week, 2 hours.

Mechanic Arts, 1 Period, 3 hours a week, Saturday afternoon.

Preparatory students may also take Penmanship, which will count as a part of their course in the Commercial School.



University Hall.

COLLEGE OF THE ARTS AND SCIENCES.

PROFESSOR HARVEY, ACTING DEAN.

The control of this College is vested in the Faculty, consisting of the President, ex-officio member, the Vice-President as Dean, and all the Academic Professors in charge of the several Schools of this College.

All students in this College are under the control of this Faculty, so far as their work is in this College.

All matters of discipline involving suspension, dismission or expulsion from this College or the University, are determined finally by the proper University authority.

This College is composed of ten Academic Schools, viz: English, Mathematics, Ancient Languages, Modern Languages, Chemistry, Physics, Biology, Geology, Metaphysics and Political Science. The courses in these several schools are found in the following announcements.

ENGLISH.

PROFESSOR ARMSTRONG.

I—MINOR COURSE.

SECTION 1.

English Language and Literature. 3 hours.

History and growth of the English Language; History of English and American Literature; Class Study of Masterpieces; and Prescribed course in Collateral Reading. Monday, Wednesday, Friday, 8:15.

SECTION 2.

Rhetoric and Theme-writing. 2 hours.

Rhetoric, Theoretical and Practical; Close Study of the Principles of Rhetoric; Weekly Themes; Class Discussion of Themes. Tuesday, Thursday, 10:30.

II—MAJOR COURSE.

SECTION 1.

English Literature and Literary Criticism. 3 hours.

Recitations, Reports, Critiques, Reviews, Critical Class Readings, and Prescribed Collateral Readings.

The object of this course is to give the student a taste of many of the classics of English and American Literature. He has already taken a general survey of the field of literature, and is now prepared for work more special and fairly critical. Monday, Wednesday, Friday, 10:30.

SECTION 2.

Theme-writing and Criticism. 2 hours.

An advanced course in Rhetoric, Analysis and Theme-writing, Tuesday, Thursday 8:15.

III—SPECIAL COURSES.

SECTION 1.

Anglo-Saxon. 2 hours.

Anglo-Saxon Grammar, Translation and Etymological study of Poetic and Prose Selections, including the Gospel of Luke. Tuesday, Thursday, 9:15.

SECTION 2.

Shakespeare. 2 hours.

All the plays will be read in the year; a few will be studied closely and critically. Monday, Wednesday, 9:15.

SECTION 3.

The Bible. 1 hour.

A study of the Bible as Literature. Friday, 9:15.

Candidates for the degree of Bachelor of Arts are required to take the Major and Minor Courses. Candidates for the other degrees given by the University are required to take the Minor Course only. Any of these candidates may take elective work in the courses offered; but no student will be admitted to the Major Course or to the Special Courses, who has not taken the Minor Course.

ENTRANCE REQUIREMENTS.

Candidates are admitted to the School of English by examination only.

NOTE.—No candidate will be accepted in English whose work is defective in spelling, punctuation, idiom, or division into paragraphs.

I—READING.

A certain number of books will be set for reading. The candidate will be required to present evidence of a general knowledge of the subject matter, and to answer simple questions on the lives of the authors. The form of examination will usually be the writing of a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number—perhaps ten or fifteen—set before him in the examination paper. The treatment of these topics is designed to test the candidate's power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. In place of a part or the whole of this test, the candidate may present an exercise book, properly certified by his instructor, containing compositions or other written work done in connection with the reading of the books.

The following are the books for the four coming years:

1897: Shakespeare's As You Like It; Defoe's History of the Plague in London; Irving's Tales of a Traveller; Hawthorne's Twice Told Tales; Longfellow's Evangeline; George Eliot's Silas Marner.

1898: Milton's Paradise Lost, Books I and II; Pope's Iliad, Books I and XXII; the Sir Roger de Coverly Papers in the Spectator; Goldsmith's The Vicar of Wakefield; Coleridge's Ancient Mariner; Southey's Life of Nelson; Carlyle's Essay on Burns; Lowell's Vision of Sir Launfal; Hawthorne's The House of the Seven Gables.

1899: Dryden's Palamon and Arcite; Pope's Iliad, Books, I, VI, XXII and XXIV; The Sir Roger de Coverly Papers in the Spectator; Goldsmith's Vicar of Wakefield; Coleridge's Ancient Mariner; I

A Corner in the Library.

Quincey's Revolt of the Tartars; Cooper's Last of the Mohicans; Lowell's Vision of Sir Launfal; Hawthorne's The House of the Seven Gables.

1900: Dryden's Palamon and Arcite; Pope's Iliad, Books I, VI, XXI and XXII; Goldsmith's The Vicar of Wakefield; Scott's Ivanhoe; De Quincey's Revolt of the Tartars; Cooper's Last of the Mohicans; Tennyson's The Princess; Lowell's Vision of Sir Launfal.

II—STUDY AND PRACTICE.

This part of the examination presupposes the thorough study of each of the works named below. The examination will be upon subject-matter, form and structure.

The books set for this part of the examination will be:

1897: Shakespeare's The Merchant of Venice; Burke's Speech on Conciliation with America; Scott's Marmion; Macaulay's Life of Samuel Johnson.

1898: Shakespeare's Macbeth; Burke's Speech on Conciliation with America; De Quincey's Revolt of the Tartars; Tennyson's The Princess.

1899: Shakespeare's Macbeth; Milton's Paradise Lost, Books I and II; Burke's Speech on Conciliation with America; Carlyle's Essay on Burns.

1900: Shakespeare's Macbeth; Milton's Paradise Lost, Books I and II; Burke's Speech on Conciliation with America; Scott's Marmion; Macaulay's Essays on Milton and Addison.

MODERN LANGUAGES.

PROFESSOR HARVEY.

In this school are taught French and German. In each language there are two courses, a Minor and a Major.

In the Minor Course the student is drilled in the accidence of the language and in some of the simpler forms of Syntax.

In the Major Course attention is paid more especially to the Syntax, History and Literature of the language.

Instruction is given by recitations and familiar conversations upon approved text-books. Frequent exercises are required of all classes. Besides the regular class-room work, an extra private course in reading will be prescribed and required in the Major Course.

Students who desire to enter this school must have a thorough knowledge of the elements of English Grammar, and have completed the course in Latin prescribed for the Preparatory School.

I. MINOR FRENCH.—Five times a week throughout the year.

Fall Term: Whitney's or Edgren's Grammar, Super's or Whitney's Reader.

Winter Term: Grammar continued, Reader continued.

Spring Term: Halevy's L'Abbe Constantin or selections from modern authors.

I. MINOR GERMAN.—Five times a week throughout the year.

Fall Term: Joynes-Messner's or Thomas' Grammar, Joynes' or Harris' Reader.

Winter Term: Grammar continued, Reader continued.

Spring term: Grammar continued, Schiller's Jungfrau von Orleans or other selections.

II. MAJOR FRENCH.—Three times a week throughout the year.

Fall Term: Souvestre's Philosophe Sous Les Toits, Grammar and exercises.

Winter Term: Selections from Corneille, Racine and Molliere, Grammar and exercises.

Spring Term: Selections from Hugo, Balzac and others, Saintbury's Literature.

II. MAJOR GERMAN.

Fall Term: Riehl's Culturgeschichtliche Novellen, or other selections, Grammar and exercises.

Winter Term: Goethe's Iphigenie and Hermann und Dorothea, or other selections, Grammar and exercises.

Spring Term: Lessings' Nathan der Weise or other selections, Hosmer's Literature.

ANCIENT LANGUAGES.

PROFESSOR DOUTHAT.

Time for Regular Classes, Minors, 11:30—12:30; Majors, 9:30—10:30.
Time for Specials: 10:30—11:30.
Time for Electives: 8:30—9:30.
10:30.

First Sections: Greek Classes, Mondays, Wednesdays and Fridays.
Second Section: Latin Classes, Tuesdays and Thursdays.

Ten hours per week in each Section or five hours in each Section together with ten hours in Modern Languages are required for the A. B. degree.

The degree of A. B. L. has five hours in each Section or ten hours in Latin.

Requirements for admission to the Minor Latin are:

A thorough knowledge of the principles of Latin Grammar; ability to write ordinary Latin prose; facility in reading such prose as that of Nepos, Caesar and Cicero, and the reading of not less than two books of Aeneid. Students who can pass an examination on the Minor Latin will be admitted to the Major Course.

REGULAR WORK IN LATIN.

I—MINOR COURSE.

Fall Term: Virgil's Eclogues and Georgics, Ovid or Catullus.
Winter Term: Horace's Odes.
Spring Term: Aulus Gellius' Stories, or Cicero's De Amicitia.

Prose Composition, one Term.
Sight Reading, one Term.
Special Collection of Working Vocabulary, one Term.
Scanning frequent.

II—MAJOR COURSE.

Fall Term: Livy.
Winter Term: Horace's Satires and Epistles.
Spring Term: Cicero's Leters, De Officiis or De Oratore.
Prose Composition, one Term.
Sight Reading, one Term.
Conversation in Latin and Special Collection of working Vocabulary, one Term.
Scanning frequent.

III—SPECIAL COURSE.

Fall Term: Early Latin, Allen's Remnants and Merry's Fragments.
Winter Term: Plautus or Terence.
Spring Term: Juvenal or Pliny's Letters.
Scanning and Special Exercises.

IV—ELECTIVE COURSE.

1. Fall Term: Tacitus, Germania and Agricola.
   Winter Term: Quintilian, 10th and 12th Books.
   Spring Term: Seneca, Select Letters. Special Exercises.
2. Throughout the Year: Sanskrit and Comparative Philology.
3. Throughout the Year: Romance Languages: Spanish, Italian, Portugese, Rouman, Lithuanian, French-Basque, Spanish-Basque, etc.
4. Throughout the Year: Teutonic Languages: Old and Middle German, Norwegian-Danish, etc.

REGULAR WORK IN GREEK.

I—MINOR.

No preparation is required to enter the Greek.

Greek begins in the College Courses as here outlined.

Fall Term: Paradigms and Exercises.

Winter Term: Verbs (Special Study) and Xenophen's Anabasis.

Spring Term: Herodotus, or Homer's Iliad. Prose Composition and Diagram Analysis.

II—MAJOR.

Fall Term: Homer's Odyssey, or Xenophon's Memorabilia.

Winter Term: Plato's Apology and Crito, or Sophocles' Oedipus Tyrannus.

Spring Term: Aristophane's Clouds, or Plutarch's Lives. Prose Composition, Sight reading and Scanning.

III—SPECIAL.

Fall Term: Plato's Protagoras, or Euripides' Iphigenia in Tauris.

Winter Term: Sophocles' Electra, or Demosthenes' De Corona.

Spring Term: New Testament Greek, or Aeschylus' Promotheus. Scanning and Special Exercises.

IV—ELECTIVE.

1. Fall Term: Aeschylus' Agamemnon, or Thucydides' Histories.
   Winter Term: Plato's Republic, or Pindar's Odes.
   Spring Term: Euripides' Iphigenia in Aulida, or Aristotle.

2. Throughout the Year: Modern Greek and Comparative Philology.

Students who can pass an examination on the Minor Greek will be admitted to the Major Course.

The University provides a thorough Preparatory Course in Greek for those requiring such preparation.

All candidates for the degree of A. B. are required to take the Majors and Minors in both Latin and Greek. Then they may elect ten hours in ancient or modern Languages.

Candidates for the degree of A. B. in Law are required to take ten hours in Latin and Greek or ten hours in Latin alone.

MATHEMATICS.

PROFESSOR STEWART.

Before being admitted to this course, students will be required to pass examinations in Arithmetic, (including the metric system of weights and measures), in Plane Geometry, and in University Algebra to Logarithms.

Too much emphasis cannot be placed upon a thorough preparation for a course in pure mathematics. The student should have clear conceptions of the meaning of all that he does, and be able to state and solve problems with clearness and accuracy. He should be able to apply the principles of geometry in the construction of diagrams, in the solution of numerous exercises, and the demonstration of simple theorems.

In all examinations much depends upon the clearness, accuracy and completeness of the answers given.

The course consists of one Minor, one Major and one Special course. The Minor course is required of all students who are candidates for a degree. The Major course, in addition to the Minor, for all who are candidates for scientific or engineering degrees.

I. MINOR COURSE.—Five hours per week throughout the year.

Fall Term: Wells' College Algebra, Logarithms, Determinants and Theory of Equations.

Winter Term: Wells' Solid Geometry and Exercises.

Spring Term: Wells' Plane and Spherical Trigonometry, Revised.

II. MAJOR COURSE.—Five hours per week throughout the year.

Fall Term: Analytic Geometry, Nichols.
Winter Term: Differential Calculus, Curve Tracing, Hardy.
Spring Term: Integral Calculus, Hardy.

III. SPECIAL COURSE.—Two hours per week throughout the year.

Astronomy: Descriptive and Mathematical.
Students must complete Course I before entering upon Course III.
The Minor course is divided into two Sections:
Section 1. For all scientific students, recites at 10:30 a. m.
Section 2. For B. A. students, recites at 2 p. m.

CHEMISTRY.

PROFESSOR WHITEHILL.

I—MINOR COURSE.

1. General Chemistry.

First Section: Tuesdays, Thursdays and alternate Fridays.
Second Section: Mondays, Wednesdays and alternate Fridays.

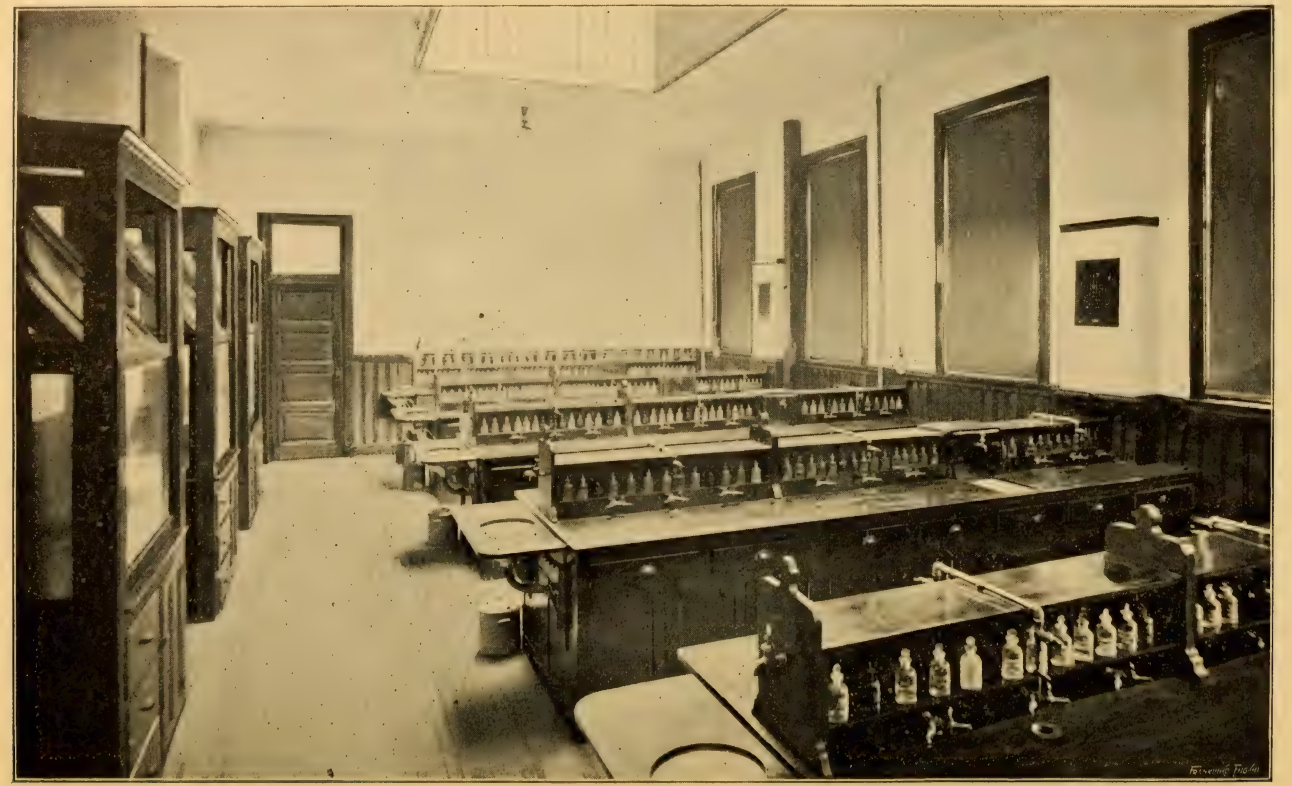
This course co-ordinates with the course in General Physics for one complete minor course, and is required of all candidates for degrees in the College of Arts and Sciences, the Engineering Schools and Agricultural College. It is required of students who take the Special Course in Medicine and also of students who are candidates for the degree of Bachelor of Arts in Law.

Fully one half of the time devoted to this course is taken up with experimental work; and the experiments serve as a general introduction to chemical methods and operations. Special attention is paid to the application of Chemistry in agriculture, engineering, medicine, pharmacy and the arts and manufactures, and suggestions are given in the line of turning chemical knowledge to practical account. Inorganic Chemistry and Chemical Philosophy are studied throughout the year.

2. In connection with their study a course of lectures on Organic Chemistry is given during the Winter and Spring terms.

II—MAJOR COURSE.

1. During the Fall Term 2 exercises or 4 hours of laboratory work per week are required. During the Winter and Spring Terms the



One of the Chemical Laboratories, Science Hall.

class meets in sections, and the laboratory is open every afternoon from 1:30 until 3:30. The students work under the constant supervision of the instructor.

During the first part of the year a complete course in Qualitative Analysis is given. On the completion of this work an elementary course in Quantitative Analysis is begun, and is continued throughout the remainder of the year.

This course is required of students who are candidates for degrees in the Engineering Schools and in the Agricultural College. It is also required of students who are candidates for the degree of Bachelor of Science.

Students who have completed the first year's work in Chemistry in the University are admitted to this course without examination. Other applicants are required to present evidence of their proficiency in Elementary Chemistry either by certificate from approved institutions or by examination.

III—SPECIAL COURSES.

1. Quantitative Analysis.

The time required for this course is 5 hours per week of laboratory work throughout the year. Students who desire to make a special study of chemistry may have this time extended. The course includes instruction in both gravimetric and volumetric methods. Exercises are given in determining the composition of ores, minerals, clay, sand, coal, coke, potable and mineral waters and various technical compounds. Instruction is also given in assaying, gas analysis, and in the analysis of iron and steel. In Agricultural and Industrial Chemistry, such exercises are given as will give as wide an acquaintance as possible with chemical methods and manipulation.

Students who expect to teach Chemistry as well as those who expect to become professional chemists, will find in this course unusual facilities for advanced practical work.

2. Special courses in other subjects pertaining to this department will be given in accordance with the time at the disposal of the instructor and the demand for such courses.

FACILITIES FOR INSTRUCTION.

During the present year the facilities for instruction in Chemistry have been largely increased. The rooms assigned to this department are located on the second floor of the Scientific Building and consist of a lecture-room and two large laboratories. Connected with these are a dark room, a weighing room and a preparation room. The laboratories afford working space for 50 students at a time, and are abundantly supplied with water and gas and the chemicals and apparatus necessary for practical work. This apparatus includes a large number of pieces used in illustrating the elementary principles of the science, as well as many of the more expensive instruments used in analytical work. An excellent collection of the latest text and reference books is kept within easy reach of the students, and the aim has been to make the laboratory outfit as complete and ample as possible.

One of the Chemical Laboratories.

Forge Room, Mechanic Arts Building.

PHYSICS.

PROFESSOR HODGES.

I—MINOR COURSE.

1. General Physics: Mondays, Wednesdays and alternate Fridays, 9:15 a. m.

2. General Physics: Tuesdays, Thursdays and alternate Fridays, 9:15 a. m.

This course extends throughout the year and co-ordinates with Minor Chemistry; the two together making one complete Minor Course. It is required of all candidates for degrees in the College of Arts and Sciences, Engineering Schools, and Agricultural College.

The object of this course is to give a general knowledge of the elements of Physics, both to serve the purpose of general culture and prepare the student for more advanced work.

Requirements for Admission: Algebra and Plane Geometry.

2. Elementary Laboratory Course.

One exercise per week, Friday, 1:30 p. m., or Saturday, 8:30 p. m.

This course is intended to accompany Course I. It is required of students in the Engineering Schools, and is recommended to candidates for the degree of Bachelor of Science.

II—MAJOR COURSE.

1. Advanced Physics.

Two recitations and one laboratory exercise per week. Lectures, Tuesday and Thursday 11:30 a. m.

This is a course in Practical Physics supplemented by theoretical work in Mechanics, Hydrostatics, Heat and Electricity. It is intended primarily for Engineering students and is required of them, but other students having the necessary preparation will be admitted to the

classes. Candidates for the degree of Bachelor of Science, who elect Minor Course No. 2, should take this course in preference to Major Course 2.

Requisites for admission: Minor Physics Courses 1 and 2 and Minor Mathematics.

2. Laboratory Course in General Physics.

Two exercises per week throughout the year. Hours assigned by the Instructor.

Candidates for the degree of Bachelor of Science are required to take this course (except when Course 1 is elected instead). It is recommended to all students who expect to teach Physics in Secondary schools.

Students of whom the full course is not required may register for one hour if they have not sufficient time for two exercises per week.

Requirements for Admission: Minor Course 1 and Minor Mathematics.

III—SPECIAL COURSE.

1. Electricity and Magnetism. One exercise per week, Monday, 1:30 p. m.

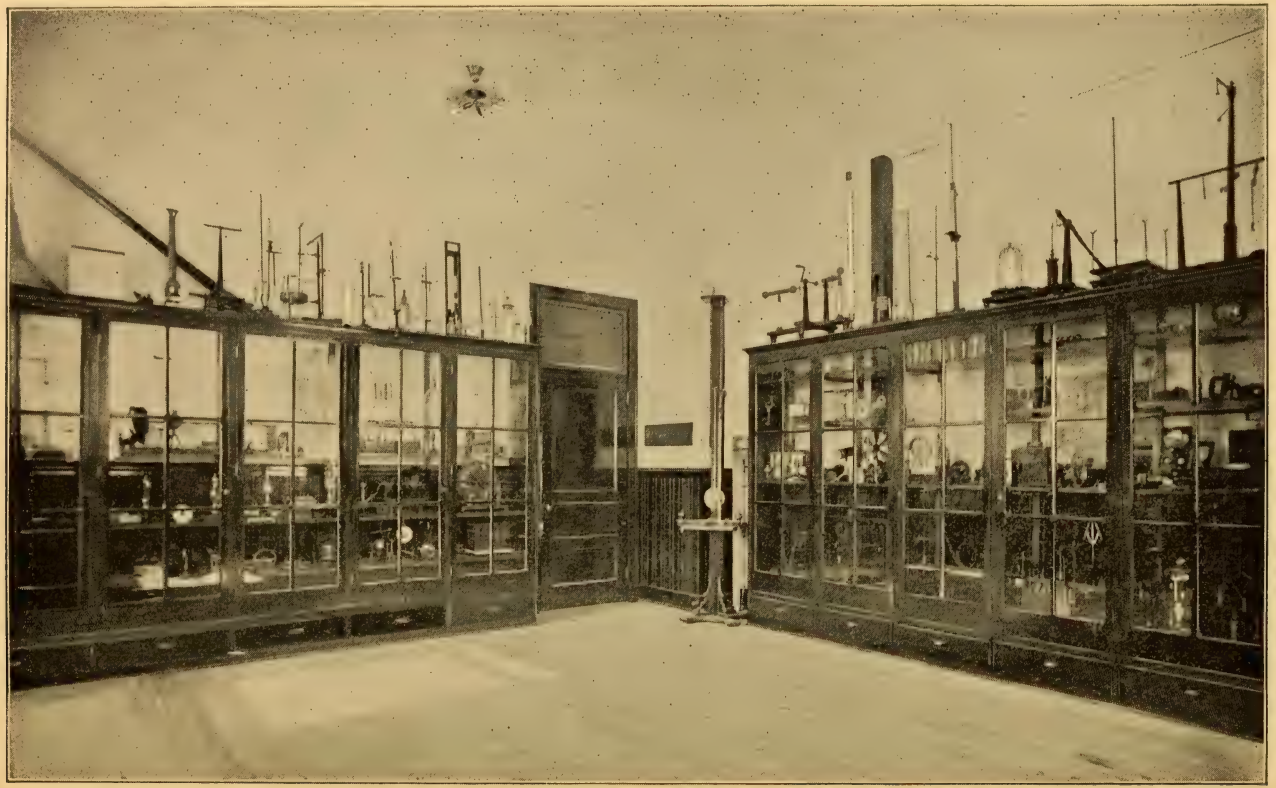
This is a course in the Laboratory and will be wholly given to quantitative experiments. Requirements for admission: Major Course I and Major Mathematics.

FACILITIES FOR INSTRUCTION.

Students in the several classes have access to a large and valuable collection of apparatus, and the various recitations and lectures are illustrated by tests and experiments. The following are some of the more important pieces of appartus which are found in the Laboratory: Atwood's Machine, balances, Jolly balance, Brush-Dynamo, Ruhmkorff Coils, Holtz and plate electrical machines, with accessories, Leyden and galvanic batteries, electrical testing sets, resistance coils, Wheatstone's bridges, ampere and volt meters, galvanometers, electric motors, Geissler, Crookes and Plucker tubes, telegraphic instruments, telephones, microscopes, spectroscope, polariscope, calorimeters, air pumps with accessories, siren sonometers, manometric flame apparatus, radiometer, optical lantern, kaleidoscope, stereoscope, meteorlogical instruments and apparatus, apparatus for electroplating, photographer's outfit, models, levers, planes, pulleys, pendulums, etc.

Recent additions to the Laboratory equipment have greatly increased the facilities for experimental work by the individual student.

The Laboratory will be open every afternoon, except Saturday, and on Saturday morning for use of students. All Laboratory work will be under the personal supervision of the Instructor.



Physical Laboratory.

BIOLOGY.

PROFESSOR HARTIGAN.

I—MINOR COURSE.

Sec. 1. FIELD BOTANY.

This class meets once a week throughout the year. The Fall and Winter terms are devoted to the study of the text, which is expanded by lectures from time to time, while the Spring term is given to practical work in the analysis of flowers. Examinations are held at the end of each term, and in addition to the practical work in the class room and field, each student is required to prepare an herbarium of one hundred species. The text is Wood's Botanist and Florist. In analysis, Wood, and the systems of Gray and Kellerman.

Sec. 2. PHYSIOLOGY AND HYGIENE.

One hour a week throughout the year is given to this subject, (coordinated with Section 1.) The course is entirely by lectures, no special work being used as a text, though any standard work is recommended for collateral reading. Books recommended for reading are: Flint's Human Physiology, Yoe's Manual, Kirke, Dalton. In Hygiene—Huxley and Youmans, Wilson, Parks.

Sec. 3. ZOOLOGY.

Two hours a week throughout the year are given to this subject. The Fall term is given to the study of Comparative Zoology. This part of the course is mainly by lectures. The Winter and Spring terms are devoted to the study of Systematic Zoology, Embryology and Histology. Students are instructed in the use of the microscope,

and are required to use it in their investigations each day in the classroom. Members of this class are required to skeletonize five vertebrate animals, as practical work.

The text is Orton's Zoology, with the works of Darwin, Haeckel, Spencer, Packard and Claus, for reference.

II—MAJOR COURSE.

Sec. 1. STRUCTURAL BOTANY.

One hour a week throughout the year is given to this subject. The Fall and Winter terms are given to the study of general plant Anatomy and Physiology; and the Winter term to the special consideration of these subjects, the student being instructed in the practical use of the microscope in the study of Plant Histology. Bessey's Structural Botany is the text used.

For reference, Gray, Sachs, Crookshank's Bacteriology, Bentley, Cook.

Sec. 2. HUMAN ANATOMY.

Five hours a week throughout the year are given to this subject. The teaching is entirely by lectures, and is designed as a special course in this branch for those desiring to prosecute the study of Medicine and Surgery. The skeleton or cadaver will furnish the proper text for each lecture, though models, manikins, specimens and charts will be used when necessary to elucidate any special subject.

Students in this Section are required to dissect three parts of the human body and to be examined thereon. The dissecting room is open each evening from 7 till 10 o'clock and all members of the class are required to be present. Keene's edition of Gray's Anatomy is the text used.

Sec. 3. MICROSCOPY.

Two hours a week are given to this course. This is elective. Instruction is given in Microscopical Technique, Vegetable and Animal Histology and Bacteriology. The principles of Staining, Germ Culture, Methods of Analysis of air and water are studied as applied to practical Hygiene. The course is by lectures and practical laboratory work.

Biology.

III—MEDICAL COURSE.

Special certificates in Major Sections 1 and 2 are accepted by leading Medical Schools of the country, as an equivalent for the same subjects required by them for the degree of M. D., and all students entering these Sections with a view to obtaining such certificates, must pass an examination in Preparatory Latin and second year's English, and, if not prepared on entrance to take such examinations, they will be required to pursue these studies during the year in connection with the above Sections.

Certificates from this department in Human Anatomy, Physiology and Microscopy, will be accepted as equivalent for these subjects, and students holding such certificates will be admitted to advanced or second year standing in the following Medical institutions: Miami Medical College and Medical department of the University of Ohio, Cincinnati, Ohio; Barnes Med. College, St. Louis, Mo.; Med. Col. of Western Pennsylvania, Pittsburg, Pa.; Baltimore Medical College, College of Physicians and Surgeons, and Medical department of the University of Maryland, Baltimore, Md.; Medical department of the University of Pennsylvania, and Jefferson Medical College, Philadeldelphia, Pa.

GEOLOGY AND MINERALOGY.

PROFESSOR BROWN.

These are classified in Courses. All classes continue throughout the year.

I—MINOR COURSE.

Sec. 1. PHYSICAL GEOGRAPHY.

In the Spring term this subject will be taught principally by lectures upon the relation of Physical Geography to human history.

Monday, Wednesday, Friday, 10:30. 3 hours.

Sec. 2. GENERAL GEOLOGY.

This subject is open to all students who have attained proficiency in Chemistry and Botany. It is required of all candidates for the degree of A. B.

Text-book, Dana's Manual of Mineralogy.

Monday, Wednesday and Friday, 11:30. 3 hours.

Sec. 2. ECONOMIC GEOLOGY.

It is necessary to have completed one year's work in General Geology before being admitted to this class.

The first part of this Section will be devoted to the geology of mining and agriculture; the second part will consist of the examination of rocks and rock-making materials with special reference to the qualities of our various building stones. Examination by microscope of thin sections of various rocks will be a frequent class exercise.

Text-books, Tarr's Economic Geology of the United States and Merrill's Stones for Building and Decorations.

Monday, Wednesday and Friday, 11:30. 3 hours.

One of the Geological Rooms.

One of the Zoological Rooms.

EQUIPMENT IN THIS SCHOOL.

The equipment for purposes of illustrative teaching in this School is now considerable, although many things are yet needed. Additions are made annually.

For teaching Geography and Structural Geology, many maps and models are at hand.

For Historical Geology, we have now nearly complete, Ward's College Collection of Paleontology, showing the advancement from the early forms of life to those of the present time.

For Mineralogy and Economic Geolgogy, we have now well selected specimens of several hundred species of minerals and building stones.

EXCURSIONS.

Local excursions, on Saturdays especially, are made by the regular classes during the Fall and Spring terms, and much attention is given to stratigraphic and economic problems in Geology. Few States offer so many advantages to students in practical geology as does West Virginia.

The site of the University, located as it is in the heart of the great Appalachian coal field and close to a great oil and gas region, offers unequaled facilities for the study of many problems connected with this useful science.

SCHOOL OF METAPHYSICS AND POLITICAL SCIENCE.

PROFESSOR REYNOLDS.

METAPHYSICS.

This subject provides for the following Topics:

1. Psychology: physiological, comparative and historical.
2. Logic: deductive and inductive, and the principles of the science.
3. Ethics: theoretical and practical.

I—MINOR COURSE.

This course requires five hours per week throughout one session and is arranged as follows:

Section. Mondays, Wednesdays and Fridays, 8:15.

Fall Term: Elements of Psychology and general introduction to the science.

Winter Term: Studies in Psychologcial and comparative Psychology.

Spring Term: Ethics and the Science of Religion.

Instruction in this Course is given by text book assignments; recitations, lectures, charts and diagrams, notes and discussions.

II—MAJOR COURSE.

This Course will be made up of advanced studies in the subjects composing the Minor Course, for those who wish to pursue the study

of these subjects further; with additional studies in Metaphysics proper and the History of Philosophy. The sections of this Course, the special topics and the schedule hours, will be announced at the beginning of the session.

HISTORY AND POLITICAL SCIENCE.

This Topic embraces the courses given in History, Comparative Politics, Science of Government, Development of the Government of the United States, Political Economy and Principles of Economics, and practical questions, such as Socialism, Finance, etc., etc.

I—MINOR COURSE.

Section1. Mondays, Wednesdays and Fridays, 10:30.

Fall Term: Historical Introduction to Politics.

Winter Term: Comparative Politics; an examination of the forms of government of the leading nations of the world.

Spring Term: Development of the Government of the United States.

Section 2. Tuesdays and Thursdays, 10:30.

Fall Term: Principles of Political Economy.

Winter Term: Practical applications of principles of Economics.

Spring Term: Finance, with History and principles of the American system.

II—MAJOR COURSE.

This Course will be made up of more advanced studies in the subjects composing the Minor Course, and in kindred subjects of a political, economic and social character. The selections of the Course, special topics and a schedule hour will be announced at the beginning of the session.

Instruction in this school will be by maps, text book assignments, recitations, collateral reading, lectures, notes, and discussions.

FACULTY OF THE WEST VIRGINIA AGRICULTURAL COLLEGE.

J. L. GOODKNIGHT, D. D., PRESIDENT.

JOHN A. MYERS, A. M., PH. D., DEAN,
Professor of Agricultural Chemistry.

P. B. REYNOLDS, D. D.,
Professor of Psychology and Political Economy.

L. C. CORBETT, M. S.,
Professor of Agriculture and Horticulture.

A. D. HOPKINS, PH. D.,
Professor of Entomology.

B. H. HITE, M. S.,
Professor of Organic Chemistry.

A. R. WHITEHILL, PH. D.,
Professor of General and Analytical Chemistry.

JAS. W. HARTIGAN, A. M., M. D., F. S. S., F. R. M. S.,
Professor of Biology and Bacteriology.

ROBT. A. ARMSTRONG, A. M.,
Professor of English.

Grounds and Some of the Buildings.

The University Farm Buildings.

JOHN I. HARVEY, A. M., PH. D.,
Professor of Modern Languages.

SAMUEL B. BROWN, A. M.,
Professor of Geology.

JOHN L. JOHNSTON, C. E.,
Professor of Civil Engineering.

THOS. E. HODGES, A. M.,
Professor of Physics.

JAMES S. STEWART, M. S.,
Professor of Mathematics.

WILLIAM P. WILLEY, A. M.,
Professor of Exuity and Jurisprudence.

CAPT. C. C. HEWITT, 19TH INFANTRY, U. S. A.,
Professor of Military Science and Tactics.

THOMAS C. MILLER, A. M.,
Principal of Preparatory School.

A. J. HARE. A. B.,
Assistant Professor in English and Mathematics.

W. E. RUMSEY, B. S. AGR.,
Assistant in Entomology and Botany.

JAMES M. JOHNSON, M. S.
Assistant in Agriculture.

RUSSEL L. MORRIS, C. E.,
Assistant in Civil Engineering.

W. BERNARD CUTRIGHT, A. B.,
Assistant in Preparatory Department.

C. R. JONES, C. E.,
Assistant in Mechanical Engineering.

D. J. BARTON,
Assistant in Preparatory Department.

WAITMAN BARBE, M. S.,
Field Agent of the University.

MRS. SADIE M. HOUSTON,
Experiment Station Librarian.

Experiment Station.

THE WEST VIRGINIA AGRICULTURAL COLLEGE.

The West Virginia Agricultural College is organized as a department of the West Virginia University. Heretofore, the instruction in Agriculture has been given in what was known as the "Agricultural Course," but in the reorganization of the University, it is deemed advisable to enlarge the facilities in this department, and it will now be recognized as a college with a complete Faculty and course of study intended to fully equip young men for the highest practical and scientific agricultural pursuits. It contemplates a liberal and scientific training along agricultural lines, besides giving extensive and complete courses of instruction upon strictly agricultural subjects; it affords facilities for the mastery of agricultural chemistry, horticulture, dairying and animal husbandry and provides extensive and accurate training in chemistry, physics, bacteriology, entomology, botany, geology, mathematics, political economy, English and German, and military science. A student who takes the agricultural course will have scientific attainments and mental training equal to those acquired by students in any of the scientific courses of the University.

The requirements for entering the Agricultural College for a degree are the same as for entering the several engineering schools of the University, except Industrial Drawing required at 1:30 p. m., Friday, and Mechanic Arts, Course 1, at 8:30 a. m., on Saturday. Students who are not prepared to enter the course upon this grade, will be required to take the necessary preliminary studies either in the preparatory School of the University or elsewhere, and pass an examination upon them or satisfy the several professors of their proficiency before entering the Agricultural College as regular students.

In order to stamp upon the student's mind a taste for agricultural pursuits, instruction in agriculture will begin in the Freshman year, and extend throughout the whole course of four years. A study of

the work of the several professors will indicate in detail the requirements necessary to complete the course and secure the degree of B. S. Agriculture.

Students in the Agricultural College will recite to the regular professors of the University in those classes which are studying branches that are required in the Agricultural course. Where technical or special instruction is required, additional professors are provided, so that the student may secure the broadest agricultural training under highly favorable conditions.

The splendidly equipped mechanical department, the resources of the engineering and scientific schools of the University, together with their ample laboratories and splendid outfits of scientific apparatus, and the libraries of the Agricultural Experiment Station and University are placed at the command of the student. The farm of the Agricultural Experiment Station, together with its gardens, experimental plants, laboratories and collections will be available for students desiring to acquaint themselves with the practical and scientific methods of conducting agricultural pursuits, and to investigate scientific questions relating to the progress and development of agriculture.

The farm recently bought by the University is an average West Virginia farm, equipped with barns, stables and other buildings, and presents a variety of soils and conditions frequently existing upon many of the farms of the State. Upon this farm are to be kept different varieties of farm animals, the most approved agricultural implements, and facilities are provided for studying the most economic methods of handling live stock and their products.

As far as resources of the University will justify, and the practical demands of the farm may require, students in the agricultural and horticultural courses may find a limited amount of work, for which they will be paid, when it is of a character that will prove remunerative to the institution. No payment, however, will be given to them for practice in the application of particular principles, or in illustrating the operations of agricultural implements, etc.

It is believed that a student completing the course in agriculture at the West Virginia University will have secured a training bearing directly upon agriculture and at the same time have acquired a breadth of culture that will enable him to successfully compete in the struggle of life with the graduates of any other agricultural college in the country. The students who graduate from this course are expected to be thoroughly trained and enthusiastic followers of their chosen profession. In the past, there has never been in this State, the demand for an agricultural education that prevails in some other States of the country, where agriculture is more universally engaged in, and is the

Experiment Station Laboratory.

Department of Agriculture.

leading industry; but the Board of Regents, wishing always to keep the University fully abreast of the times, has thought best to organize this institution in the hope that young men may be found in the State who desire to take such a course of instruction as will justify the Board in organizing and maintaining this extensive plant strictly and solely for the benefit of the agricultural classes of the State.

SHORT COURSE IN AGRICULTURE.

I—A ONE YEAR COURSE.

The instruction given in this plan of work is the same as that offered to the students in the full four years Agricultural College Course, but because of the short time allotted, its scope is necessarily more restricted. While the instruction is as thorough as that in the four years Agricultural College course, fewer subjects can be taught and those taken up are strictly agricultural in their nature. The study of the elements of agriculture and horticulture are taken up in the following order.

IN THE FALL TERM, the work in agriculture embraces the consideration of the origin and the composition of the soil; in horticulture, pomology; in animal industry, stock feeding.

IN THE WINTER TERM, the work in Agriculture is continued by instruction in tillage and fertilization of the soil, and discussions upon the use and care of farming machinery. In Horticulture with lessons in grafting, budding, and the construction, care and management of hot beds, cold frames and green houses. In Animal Industry, dairying, butter and cheese making are taught by lectures and laboratory practice.

IN THE SPRING TERM, vegetables and their culture form the basis for the main topics of consideration in horticulture. In Animal Industry, stock breeding is the subject discussed; while in Agriculture, the special crops grown in West Virginia are considered in the order of their importance.

Economic Botany and Entomology, both of which are taken up in the most helpful manner to the student, are pursued throughout the whole year.

Agricultural Chemistry in its elementary form is given to aid in enforcing the importance of and throwing light upon the problems of grain raising, feeding, and manuring, and is pursued throughout the year.

II —THE TWELVE WEEKS COURSE IN AGRICULTURE.

This course is intended to take the place of the University Extension work in Agriculture by furnishing an epitome of the four years and one year courses for persons who have a good practical knowledge of the problems of general agriculture, stock breeding, dairying, or horticulture, and who cannot spend even a full year at the University. Instruction in this course begins immediately upon the the re-assembling after the Christmas holiday recess and continues for twelve weeks.

Upon the completion of either of these courses and passing a satisfactory examination, the student will be presented with a certificate sating the work he or she has completed in the course taken. Heretofore a person might elect any part of the regular four years course, but no credit was given unless the full amount of work necessary for a degree was completed.

III—SPECIAL COURSES.

Special short courses in Agriculture, Horticulture, Floriculture and Poultry Husbandry are offered. These four special, short, practical courses of instruction are open to all citizens of the State above fifteen years old. They begin April 1 and continue until June 6.

These courses consist largely of practical work, and instruction in carrying on the operations of agriculture, gardening, floriculture, and handling of poultry, eggs, incubators, and young chickens.

No entrance examinations are required for these courses, and they are adapted to any one who may wish to take them.

The object of these courses is to acquaint the students with the most elementary and practical operations in the branches of industry referred to. Besides the instruction given in lectures and by text books, every student is required to carry out the actual practical work in the green houses, gardens, poultry yards, or upon the farm. The instruction is practical and thorough, and adapted to the individual student.

Station Laboratory.

EXPENSES.

Tuition	Free.
Matriculation Fee	$5.00
Incidental Fee	2.50
Total	$7.50

Board and rooms can be had at $3.00 to $4.00 per week.

For further information apply to Dr. J. L. Goodknight, President of the University, or to Dr. John A. Myers, Dean of the Agricultural College, Morgantown, W. Va.

THE COURSES OF INSTRUCTION ARE AS FOLLOWS.

ENGLISH.

PROFESSOR ARMSTRONG.

Freshman class will begin with minor English, Section 1, as laid down in the course of instruction in the University, and will continue throughout the Freshman year, on Monday, Wednesday and Friday, 8:30. In the Sophmore year students in the Agricultural Course will take minor English, section 2, two hours per week, throughout the year, on Tuesday and Thursday, 10:30. The third or Junior year, students will take major English, section 2, throughout the year, on uesday and Thursday, two hours per week. Students are recommended to take two English studies, if possible, in the Senior year, as an elective.

GENERAL CHEMISTRY AND PHYSICS.

PROFESSOR WHITEHILL.

The course of instruction in this branch will be the same as laid down in the University, (see Chemistry and Physics) and besides the lectures, will include laboratory practice Friday afternoon and Saturday forenoon, throughout the year. In the Sophomore year students will be expected to take laboratory practice in the chemical and phys-

ical laboratories on Monday and Wednesday. In the course in the chemical laboratory students will secure ample training in the methods of chemical analysis, and acquire sufficient skill to be able to interpret the results of chemical analysis, and also to make the more elementary quantitative determinations. In the physical laboratory they will be expected to acquire a knowledge of the application of principles of physics and elementary mechanics.

Chmistry and Physics at 9:30 a. m., five days in the week. Laboratory practice on Friday at 1:30 p. m., and on Saturday at 8:30 a. m., in the Freshman year; at 1:30p. m., on Monday and Wednesday of the Sophomore year.

MATHEMATICS.

PROFESSOR STEWART.

In the Freshman year the students will take what is laid down in the Minor Course 1, as laid down in the University catalogue; five hours throughout the Freshman year (see Mathematics). In the Sophomore year, under Prof. Johnston, students will be required to take the course in surveying on Tuesdays and Thursdays, two hours per week (see 16, Engineering and Professional studies). In the Freshman year students will take free-hand drawing throughout the year at two periods, Tuesday and Thursday.

GEOLOGY.

PROFESSOR BROWN.

Students will take general Geology, 2nd; Monday, Wednesday and Friday, 10:30, three hours per week in the Sophomore year, and in the Junior year at 11:30 they will take economic geology three hours per week throughout the year, (see Geology and Mineralogy).

GERMAN.

PROFESSOR HARVEY.

Instruction in the German language will begin in the Junior year and extend throughout the year, five hours per week, (see minor German). Senior year three hours per week, in which special attention will be given to acquiring a knowledge of scientific German, and students will be expected to acquire sufficient

knowledge of the language to be able to read scientific German at sight. If the student prefers he may offer French instead of German, but in either case he will be expected to have sufficient knowledge of the language to be able to readily read scientific literature published in it.

NATURAL HISTORY.

PROFESSOR HARTIGAN.

Zoology two hours per week same as in University. (See Biology). Instruction in Bacteriology and laboratory practice in use of Microscope will also be given. The University is provided with an excellent equipment for this purpose.

COMMERCIAL LAW.

PROFESSOR WILLEY.

The course in Commercial Law is the same as required in the Junior Course of the Law Department, which see. It is intended to acquaint the student with the principles of the law relating to contracts, commercial paper and business transactions of various kinds.

HISTORY AND POLITICAL SCIENCE.

PROFESSOR REYNOLDS.

The course in these branches is the same as given in the University and embraces five hours recitations or lectures per week throughout the Senior year.

The elective studies in the Senior year, three hours per week, will be arranged upon consultation with the Dean of the Agricultural College.

AGRICULTURAL CHEMISTRY.

PROFESSOR MYERS.

The course in agricultural chemistry will cover the following subjects.

Lectures and recitations as indicated in the schedule of hours. It will alternate with the course in organic chemistry.

CHEMISTRY OF PLANTS.

The production of organic substance; effect of light, heat and moisture; the changes of organic substances during plant growth, from one to another; plant breathing and feeding; nitrogenous matter of plants; carbohydrates of plants; the most valuable parts of plants.

The ash constituents of plants; water and sand culture; the chemical composition of ashes; accidental and necessary elements of plant growth found in them; various quantities of particular kinds of ash ingredients required by different plants.

Experimental methods for determining what plants require for proper growth.

The soil, its origin, physical properties and chemical ingredients; the effects of plant growth upon the composition and physical character of the soil; effects of moisture, heat, freezing, draining and cultivation upon the character of the soil; humous and organic matter; the wastage of the resources of the soil.

FERTILIZERS.

Natural and artificial fertilizers; stable manure, its composition and application; waste and organic products of the farm; composting; green manures, their growth and importance; mineral manures—salt lime, gypsum, marl, potash salts, phosphate rock.

Commercial Fertilizers—source of supply, composition and manufacture, economic fertilization.

Effects of phosphoric acid, nitrogen and potash upon plant growth; special fertilizers.

Books of reference, Storr's Agriculture; Johnson's "How Plants Feed;" Johnson's "How Plants Grow."

ORGANIC CHEMISTRY.

PROFESSOR HITE.

Two lectures a week throughout the year.

This course presupposes a knowledge of general elementary chemistry, and of qualitative and quantitative analysis.

Instruction in the theoretical basis of the science will be made as thorough as possible, and the many applications to agriculture and medicine will receive special attention.

A laboratory for organic preparation has not yet been provided; but

Experiment Station.

Corner in Station Library.

the lectures will be fully illustrated by specimens and experiments, and the student will be given an opportunity to prepare some of the more important compounds. For example, marsh gas, chloroform, alcohol, ether, ascetic acid, soaps, fruit sugar, urea, salicylic acid, rosaniline.

The instruction will be given almost entirely by lectures.

Reference Book, Remsen's Organic Chemistry.

ANIMAL NUTRITION.

ASSISTANT PROFESSOR JOHNSON.

Principles of scientific and economic feeding; protein matter, ash, water, carbohydrates, fat; composition of animal bodies.

Digestion, nutrition, excretion; feeding for special purposes.

Pasture, grain, hay, silage, by-products; feeding for special purposes.

Reference Books, Armsby's Manual of Cattle Feeding; Stewart's Feeding Animals.

DAIRYING.

ASSISTANT PROFESSOR JOHNSON.

Dairy farm and buildings; feed stuffs, rations; rearing claves; handling and care of cows; dairy breeds of cattle.

Milk, composition and qualities; bacteria of milk; fermentation; sterilization; Pasteurization of milk; condensed milk.

Creameries, their organization and management; cream, separation, preservation and fermentation; value and utilization of skim milk.

Churning—butter, production and preservation of.

Cheese—varieties, methods of making and preserving.

Bacteria of cheese.

Reference Books, Grotenfelt-Woll, Arnold and Oliver.

ECONOMIC ENTOMOLOGY AND ECONOMIC BOTANY.

PROFESSOR HOPKINS AND ASSISTANT PROFESSOR RUMSEY.

The object of these economic courses is to stimulate an interest in the study of insects and plants, and give instruction in entomological and botanical knowledge that is applicable to the needs of the students who will follow, or become interested, in any branch of agricul-

tural or horticultural pursuits; to teach the student how to observe and investigate the many simple, as well as complicated problems that are ever presenting themselves to the owner of a farm, vegetable, fruit or flower garden, a lawn or a forest, and how he may utilize this knowledge for the advancement of private and public interests.

The fall term will open with lectures on the rudiments of economic entomology and botany, followed by instruction in the practical features of these sciences that will prepare the student to take, at the beginning of the winter term, instruction in some of the more important practical features of systematic studies of insects and plants, while the spring term will be devoted, mainly, to instruction in the practical application of entomological and botanical knowledge.

FACILITIES.

The entomological and botanical laboratories of the Agricultural Experiment Station, with their full equipment of collections and apparatus, will be utilized in giving instruction in these courses.

The equipment of the entomological department consists of a collection of over 20,000 specimens and over 7,000 separate notes on original observations taken in West Virginia, by the Entomologist. The apparatus for collecting, breeding, mounting, preserving and studying specimens is complete. The microscopic outfit is sufficiently perfect for carrying on any class of study in this line. The photographic department is thoroughly equipped for the requirements of entomological and other work.

The collections and equipments of the botanical department offer superior facilities for the study of economic botany, and the practical features of systematic botany in its relation to agricultural pursuits, containing as it does a large series of West Virginia plants, and a special collection of economic plants, weeds and diseased plants; also an excellent outfit for the study of plant diseases.

ENTOMOLOGY.

Fall Term: Three exercises per week, Mondays, Fridays and Saturdays; lectures, field and laboratory work.

Mondays and Fridays, 9:30. Lectures illustrated by lantern, charts, models, drawings and specimens, on elementary entomology, and the practical feaures of the science.

Saturdays, two hours or more, at the pleasure of the student, between 8 and 12 o'clock; in the field or entomological laboratory at the

Department of Entomology.

Experiment Station. The field work in this term will be devoted to observing and collecting different kinds of insects, with instruction in methods of studying living insects and collecting specimens. The laboratory work will consist of the study of collected material, with instruction in the methods of mounting and preserving specimens.

Lectures and original observations and instruction in the field will be the leading features of this course.

Winter Term: Two exercises per week, Wednesdays and Saturdays; lectures, recitations and laboratory work.

Wednesdays, 9:30. Lectures and recitations on the practical features of systematic entomology.

Saturdays. Two hours or more, at the pleasure of the student, between 8 and 12 o'clock; in the entomological laboratory of the Experiment Station. The laboratory work of this term will be devoted to the study of insects, their anatomy and classification into orders and families. Specimens of insect work will also be studied to determine the character of the injury caused by different species.

Spring Term. Two exercises per week—Wednesdays and Saturdays; lectures, recitations, field and laboratory work.

Wednesdays, 9:30. Lectures upon the practical application of entomological knowledge.

Saturdays. Two hours or more, at the pleasure of the student, between 8 and 12 o'clock, in the field or entomological laboratory. The field work will be made a special feature of this course in studying the the different kinds and stages of insects, their habits, the character of their work, the determination of the prime cause of troubles due to insect attack by the character of the injury, the collecting of specimens and living material to study in the insectary or laboratory. Each student will be encouraged and assisted in conducting some original studies on the habits and life histories of insects, experiments with remedies, or such other lines of original investigation as may be selected by the student.

Text-book, Comstock's Manual for the Study of Insects.

ECONOMIC BOTANY.

Fall Term: Two exercises per week; Wednesdays and Saturdays; recitations, lectures, field and laboratory work.

Wednesday, 9:30, lectures or recitations; Saturdays, field and laboratory work by appointment.

The elements of economic botany; the dissemination of weed seeds, their vitality, germination and growth.

Winter Term: Three exercises per week—Mondays, Fridays and Saturdays; recitations, lectures and laboratory work.

Mondays, Fridays, 9:30, lectures and recitations; Saturdays, laboratory work by appointment.

Practical features of systematic botany in its relation to agricultural pursuits. An outline study of grasses and other forage plants, together with an examination of buds of fruiting trees and shrubs in their winter condition.

Spring Term: Three exercises per week, Mondays, Fridays and Saturdays, recitations, lectures, field and laboratory work.

Mondays and Fridays, 9:30, lectures and recitations; Saturdays, field and laboratory work by appointment.

Diseases of plants and the practical application of economic botany. The paramount features in this term's work will be the study of those fungus diseases that are of especial importance to the agriculturist, horticulturist and pomologist.

REFERENCE BOOKS FOR THE COURSE IN ECONOMIC BOTANY

Seedlings.—Sir John Lubbock.

Winter Condition of Buds. William Trealese.

Field and Garden Botany.—Asa Gray.

Agr., Grass and Forage Plants.—Dr. George Vasey.

Grasses of North America for Farmers and Students—W. J. Bell.

Fungi and Funigcides.—Clarence M. Weed.

Publications of the U. S. Department of Agr., Division of Vegetable Pathology, together with current bulletins on the subject.

AGRICULTURE.

ASSISTANT PROFESSOR JOHNSON.

Instruction in theory and practice of Agriculture is begun in the Freshman year. The work then taken up consists of a study of the origin, cultivation and drainage of soils, together with a consideration of the special treatment of the staple farm crops.

ADVANCED AGRICULTURE.

PROFESSORS MYERS AND CORBETT.

This feature of the course is designed to bring the student closely in touch with the practical problems of the farm. It is so arranged as

Experiment Plat.

Experiment Plat.

to allow some latitude for special or preferred research along any of the following lines:

Special farm crops; stock breeding; dairying or poultry raising.

SATION METHODS.

PROFESSORS MYERS AND CORBETT.

This work is required in order that students may be better equipped to read and interpret Station literature; to enable them to systematically and scientifically pursue original investigations for themselves. By this practical experience they become better prepared to carry out the work of the farm and better able to meet its problems. The subjects of farm accounts and methods of making observations are important factors in this work.

HORTICULTURE.

PROFESSOR CORBETT.

As a preparation for the work in Horticulture the student is required to have had the elements of Botany, Gray's lessons or their equivalent. The work in this department is taken up during the Fall term, and extends through the Sophomore year, the class meeting three times a week. The work of the first term consists of lectures and recitations on the origin, propagation, cultivation, insect enemies and fungus diseases of garden vegetables, together with practice in the planting and cultivation of these vegetables in the garden.

The work of the second term includes lectures upon all classes of fruits; their propagation, culture and pruning treatment to prevent injuries from insects and diseases. The lectures are enforced by actual practice in budding, pruning and planting trees, together with practical work in the preparation and application of insecticides and fungicides in their season.

The third term's work is a continuation of that of the second, together with lectures on the laying out of home grounds and the construction and management of greenhouses.

ADVANCED HORTICULTURE.

PROFESSOR CORBETT.

This course is designed to meet the requirements of those who wish to prepare themselves for florists, nurserymen or practical fruit grow-

ers, as well as those who expect to teach. A study of the methods of plant breeding, evolution and heredity as applied to cultivated plants, are its chief features. This course is open only to those who have completed the required work of the Sophomore year.

FORESTRY.

PROFESSOR CORBETT.

Two hours per week during the Senior year are devoted to the consideration of the forestry problems presented in the United States.

The importance of groves and shelter belts for the protection of growing crops, the necessity for the maintenance of a forest cover to insure adequate and lasting water supplies and for the maintenance of equable climate, as well as the preservation of a future timber supply, are questions receiving consideration in this course.

REFERENCE BOOKS UPON AGRICULTURE AND HORTICULTURE.

During the Freshman year the lectures and recitations of the course in Agriculture will be based on The Soil, by King; Land Drainage, French, and Current Bulletins, for approved methods of culture for the cereal grains.

During the Sophomore pear the work in Horticulture will be based on the Vegetable Garden, by Vilmorin; How to Make the Garden Pay, by T. Greiner; The American Fruit Culturist, by J. J. Thomas; Barry's Fruit Garden and Fuller's Small Fruit Culturist; Bushberg Catalogue and Grape Manual; and Grape Training, by Bailey.

Advanced work in Horticulture will be based on Plant Breeding, by Bailey; Origin of Cultivated Plants, by De Caudole; and on Variation of Plants, by Darwin and Crozier, and Survival of the Unlike, Bailey.

The Forestry of the Senior year will be taught by lectures based on Fuller's, Hough's, Slick's, Nesbitt's and Houston's works on the subject.

LIVE-STOCK AND POULTRY INDUSTRIES.

The instruction in the Live-stock and Poultry industries will be largely of a practical character and will be given in the afternoons of Mondays and Wednesdays throughout the Junior year. A competent instructor is to be provided.

THESES.

A thesis upon some subject relating to some agricultural or closely alied branch of study will be required of each student who graduates. This must be upon some subject selected by the Faculty of the Agricultural College and will involve original investigation of a character intended to show the full abilities of the graduates.

The graduates will be required to work a portion of every Saturday in the laboratories or upon the farm or garden duringthe entire course.

Students are advised to adopt the course of study and puruse it closely and systematically. Experience shows that those who wish to scatter their studies throughout the entire University course usually fail to graduate and generally encounter difficulties which might readily be avoided by taking the course in the order in which it is intended to be studied.

COLLEGE OF ENGINEERING AND THE MECHANIC ARTS.

FACULTY.

J. L. Goodknight, D. D., President.
Wm. S. Aldrich, M. E., Professor of Mechanical Engineering.
John L. Johnston, C. E., Professor of Civil and Mining Engineering.
Clement R. Jones, B. S. C. E., Assistant in Mechanical Engineering.
Russell L. Morris, B. S. C. E., Assistant in Civil and Mining Engineering.

OTHER PROFESSORS

GIVING INSTRUCTION IN THIS COLLEGE.

John I. Harvey, A. M., Ph. D., Professor of Modern Languages.
Alex. R. Whitehill, Ph. D., Professor of Chemistry.
Samuel B. Brown, A. M., Professor of Geology.
Robert A. Armstrong, A. M., Professor of English.
James S. Stewart, M. S., Professor of Mathematics.
Thos. E. Hodges, A. M., Professor of Physics.

The control of this College is vested in the Faculty, consisting of the President, ex-officio member, and the Professors in charge of the two schools, and Assistant Professors.

All students in this College are under the control of this Faculty, so far as their work is in this College.

The requirements for admission and graduation and the arrangement of the courses of instruction, and such other work as pertains to this College, are provided for by this Faculty, in conjunction with the University Faculty.

All final questions of discipline are referred to the University Faculty.

The degrees given upon satisfactory completion of the regular four years' course of instruction, are, respectively: Bachelor of Science in Civil Engineering and Bachelor of Science in Mechanical Engineering. If students take elective or optional studies, a certificate to that effect is attached to the diploma from that school in which such elective course is given.

Departments of School of Civil and Mining Engineering:

1—Civil Engineering,
2—Structural Engineering,
3—Railroad Engineering,
4—Mining and Metallurgy,
5—Drawing and Designing,
6—Field Practice and Surveying.

Departments of School of Mechanical Engineering and Mechanic Arts:

1—Mechanical Engineering.
2—Electrical Engineering
3—Experimental Engineering.
4—Drawing and Machine Design.
5—Mechanic Arts.

COURSES OF INSTRUCTION.

ENGINEERING SCHOOLS.

Requirements for Admission to Engineering Courses.

ENGLISH.

English Grammar, Analysis, Composition and Rhetoric.

The essentials of English Grammar will be required; an ability to analyze English sentences correctly; a sufficient knowledge of composition to enable the candidate to write with ease and precision a business letter or a composition on an assigned subject, correctly applying the rules of orthography, of the use of capitals, of punctuation, etc., and a knowledge of Rhetoric such as is contained in Genung's Outlines of Rhetoric.

ARITHMETIC.

Completed; Ray's, Greenleaf's or equivalent.

ALGEBRA.

Elementary Algebra; Ray's, Milne's or equivalent, completed. Higher Allgebra; Wells' University Algebra, or Ray's Higher Algebra to Theory of Equations.

GEOMETRY.

Plane Geometry, completed; Wells' or Brook's Geometry or equivalent.

HISTORY.

History of the United States, Fiske or Montgomery.

BOOKKEEPING.

A knowledge of elementary bookkeeping, penmanship and business forms.

ELEMENTARY SCIENCE.

Physiology and Hygiene, Hartigan, Steele or Cutter, equivalent of High School Course, and Field Botany, Wood's text or equivalent; or an equivalent in Natural Philosophy may be substituted, Gage's Introduction to Physical Science, Avery, Steele, or its equivalent.

PHYSICAL GEOGRAPHY.

As much as is usually given in High and Normal chool courses; Houston, Mitchell, or equivalent.

INDUSTRIAL DRAWING.

Elementary Free Hand, and simple instrumental Drawing, Equivalent to about one hundred hours of instruction.

MECHANIC ARTS.

Wood-working at the bench and wood-turning; iron and steel forging.

Drawing Room.

All students prepared to enter the Freshman year of Engineering can arrange to take Mechanic Arts and Industrial Drawing during that year.

In general, all candidates for admission to the Engineering Courses must have satisfactorily completed the Scientific Preparatory Course of the University, or its equivalent. Below is given the schedule of weekly recitations for this course:

SCIENTIFIC PREPARATORY COURSE.

Hour.	Junior Year.	Time.	Senior Year.	Time.
8:30	Mathematics,	5 hrs.	Mathematics,	5 hrs.
9:30	English.	5 hrs.	English,	5 hrs.
10:30	U. S. History,	3 hrs.	Elementary Science,	3 hrs.
	Elementary Bookkeeping and Penmanship,	2 hrs.	1:30 P. M., Friday, Industrial Drawing.	
			8:00 A. M. Saturday, Mechanic Arts, Course 1.	

The studies of the University should not be anticipated. A thorough and working knowledge of the elements should be acquired. In this way, academic and technical studies may be pursued to better advantage later on during the regular course.

SPECIAL COURSES.

No student can be entered as a candidate for a degree in Civil or Mechanical Engineering after the beginning of the fourth year, though deserving young men who have not the time or are otherwise unable to take the full course, will be allowed to take a special or partial course, consisting of such studies as they are prepared to take up, provided that such partial course shall have been submitted to the Faculty and approved by them.

THESES.

Each candidate for a degree in either of the Engineering Schools is required to prepare a thesis on some subject relating to a branch of engineering or other department of science. The thesis must be either a design or a review of some machine, structure or process belonging to some department of scientific investigation. It must be fully elaborated and accompanied by the necessary working drawings or models required for the proper elucidation of the subject of the thesis. The

thesis, with its accompanying drawings, must be presented to the professor of Engineering and will be deposited in the library of the University for permanent preservation.

ENGINEERING SOCIETY.

An Engineering Society has been organized in connection with the Engineering Schools, whose object is the investigation and discussion of scientific subjets. It is conducted by students of the Engineering Schools, and meets once a week. All engineering students are required to join this organization and perform such work as its rules require. Students taking a full four years' course at this institution, for the degree of B. S. C. E. B. S. M. E., are required to do three years' work in this society.

A special Engineering Library has been established for the use of this society, containing standard text and reference books on technical subjects, and the leading scientific magazines and periodicals.

COURSES OF INSTRUCTION IN ENGINEERING.

(Civil, Mining, Mechanical and Electrical Engineering).

DRAWING AND DESIGNING.

FIRST YEAR.

(1). Freehand Drawing; throughout the year, twice a week.

SECOND YEAR.

(2). Instrumental and Mechanical Drawing; throughout the year, two hours per week.

(2a). Mechanical Drawing; throughout the year, once a week.

THIRD YEAR.

(3). Mechanical Drawing; throughout the year; twice a week.

(4). Machine Drawing and Design; throughout the year, twice a week.

FOURTH YEAR.

(5). Fall and Winter Terms; Detail working plans, engineering construction and machinery designing, twice a week.

(6). Fall and Winter Terms; Machine Drawing and Designing, twice a week.

(7). Spring Term: Thesis Drawings and Designs.

APPLIED MATHEMATICS.

SECOND YEAR.

(9). Descriptive Geometry; throughout the year, three hours per week.

THIRD YEAR.

(10). Mechanics of Engineering; throughout the year, five hours per week.

(10a). Fall and Winter Terms; Applied Mathematics, 2 hours per week.

FOURTH YEAR.

(11). Fall Term; Roofs and Bridges, five hours per week.

(13). Fal Term; Thermodynamics, five hours per week.

(13). Fall Term; Thermodynamics, five hours per week.

(15). Winter Term; Hydraulics, three hours per week.

ENGINEERING PROFESSIONAL STUDIES.

SECOND YEAR.

(16). Land and Mine Surveying; throughout the year, two hours per week.

(17). Mechanical Technology; throughout the year, two hours per week.

THIRD YEAR.

(18). Fall Term; Railroad Location, three hours per week.

(19a). Fall and Winter Terms; Mechanism and Machinery; 2 hours per week.

(19b). Fall and Winter Terms; Mechanical Technology of Machine Instruction; 1 hour per week.

(19c). Spring Term; Machine Design, two hours per week.

(20). Winter and Spring Terms; Engineering Construction; three hours per week.

(21). Throughout the year; Journal Meeting; one hour per week.

FOURTH YEAR.

(22). Fall and Winter Terms; Mining, two hours per week.

(23). Winter Term; Steam Engineering (Minor Course); three hours per week.

(23a). Winter Term; Steam Engineering (Major Course); three hours per week.

(24). Fall Term; Civil Engineering; five hours per week.

(25). Winter Term; Civil Engineering; three hours per week.

(25a). Fall Term; Steam Boilers and Accessories; two hours per week.

(25b). Heating and Steam Distribution, three hours per week.

(25c). Electricity and Magnetism; three hours per week.

(25d). Winter Term; Valve Gears and Governors; two hours per week.

(25e). Winter Term; Steam Engine Design and Pumping Machinery; two hours per week.

(25f). Winter Term; Direct Current Machinery; three hours per week.

(26). Spring Term; Railroad Economy, three hours per week.

(27). Spring Term; Economics of Engineering, three hours per week.

(28). Spring Term; Metallurgy, three hours per week.

(28a). Spring Term; Design of Power Plant; two hours per week.

(29). Spring Term; Power Transmission; two hours per week.

(30). Spring Term; Alternating Current Machinery; three hours per week.

(31). Spring Term; Specifications and Contracts, two hours per week.

(32). Spring Term; Hydraulic Machinery, one hour per week.

(33). Throughout the Year; Journal Meeting, one hour per week. Original and Thesis Work, as assigned.

FIELD PRACTICE, LABORATORY AND SHOP WORK.

FIRST YEAR.

(34). Throughout the Year; Mechanic Arts, once a week.

SECOND YEAR.

(35). Throughout the year; Mechanic Arts, once a week.

(36). Throughout the year; Field Practice and Mine Surveying once a week.

THIRD YEAR.

(37). Throughout the year; Railroad Location and Topographical Surveying, twice a week.

(38). Throughout the year; Experimental Mechanics and Engineering; once a week.

(39). Throughout the year; Mechanic Arts, once a week.

(40). Throughout the year; Attendance on Motive Power and Shop Machinery, time to be assigned for each student.

FOURTH YEAR.

(41). Throughout the year; Original Surveys, Astronomical Observations, etc., twice a week.

(42). Throughout the year; Mechanical Engineering Laboratory; once a week.

(43). Throughout the year; Electrical Engineering Laboratory; once a week.

(44). Throughout the year; Mechanic Arts, once a week.

(45). Fall Term; Graphic Statics, once a week.

THE SCHOOL OF CIVIL AND MINING ENGINEERING.

PROFESSOR JOHNSTON.

The School of Civil and Mining Engineering was established by the Board of Regents of the University in 1888, and a course of study leading to the degree of Bachelor of Science in Civil Engineering went into operation that year. Since that time a large amount of fine instruments and other valuable apparatus has been accumulated. New and commodious rooms and a laboratory have been provided in the new building known as Science Hall, and the courses of study have been so expanded and improved, that they are now believed to compare favorably with the courses of Engineering as taught in the leading technical schools of the country. The several courses of study have been arranged and planned with a view to laying a broad and substantial foundation for the general and technical knowledge needed by practitioners in civil engineering; so that graduates, guided by their theoretical education, and the practical training they may get during the course, may find profitable employment in the line of their profession and develop into useful investigators and scientific constructors. It is the aim of this school to train its students to meet the actual demands of engineering science and practice, as well as to fit them to keep pace with professional progress. Some of the prominent characteristics of this school are its advanced mathematics, which occupy a prominent place in all courses and extend up to the time of graduation. Field, Laboratory and Shop Work cover a great amount of time, and a large number of subjects, giving the student an opportunity to become familiar with the instruments, methods and practices of engineering, that he could not possibly have in the older and more crowded institutions. Original investigation is encouraged and carried on at all times so that our graduates may not only fill sub-

ordinate positions, but become designers and constructors of important work as well. The work of the students is based upon an extended course on the Mechanics and Economics of Engineering; the object aimed at is to give as thorough a preparation as possible for the general purposes of the profession in the following subjects: The survey, location and construction of railroads, tramways, elevated railroads, tunnels and aqueducts; the design and construction of girder, truss and suspension bridges, of towers, roofs and arches of stone and iron; hydrographical and topographical surveys of rivers and harbors, coast and geodetic surveys; the determination of latitude and longitude and the location of true meridians; the projection of maps, the construction of working drawings, plans and specifications of various engineering structures; the design and construction of machines and the determination of their efficiency; the tests and selection of the materials of engineering; the design and construction of metallurgical works; the surveys of water works, canals, levees, revetments and retaining walls; the construction of coke ovens and the design of coal and coke plants; the construction and superintendence of power and power plants; the economic theories of railroad location and construction track work and maintenance of way of railroads; the design and construction of hydraulic motors, and a course of instruction in mining especially adapted to the coal and ore mining peculiar to West Virginia.

The methods of instruction are by recitations, lectures, laboratory and field work. Original work is encouraged and required in all courses. A large amount of apparatus and instruments are free to the use of students, and each member of the class is required to use, and become familiar with, all the instruments and apparatus belonging to that course. The facilities for instruction are believed to be full and efficient and afford fine opportunities for advanced investigation. Laboratory work is required in chemistry, mineralogy, physics, geology, thermodynamics, hydraulics and civil engineering, for which purposes all the laboratories, collections and library of the University are open to the students of this department. The material equipment of this department is already large and is constantly increasing; at present it consists of the civil engineering laboratory equipped with a collection of apparatus and instruments for instruction in engineering believed to be complete and modern, consisting of transits, levels, theodolites, surveyors' compasses, aneriod barometers, plane table, solar compass, sextant clinometers, odometer, pendometers, telemeters, prismatic compass, hand levels, a full collection of drawing instruments, blue printing outfit, complete set of United States standard weights and measures, testing machines for strength of materials, as wood, iron, steel, stone, cement, mortar, etc.; a drawing room containing a

large number of descriptive geometry models, and models of bridges, furnaces and many other structures, and a large number of wood and plaster paris casts and models pertaining to descriptive geometry, architecture, etc.

The mechanical laboratory is very large and complete, containing a great variety of machines and scientific appliances relating to steam, electric and hydraulic power. Also a photographic laboratory is used in connection with the courses in engineering.

The library contains a respectable number of volumes of standard engineering literature, mathematics, and modern research and discovery, together with the leading periodicals of the day. The laboratories and collections in the schools of Chemistry, Physics, Geology, Paleontology, Biology and Mineralogy are large and complete, as will be described elsewhere.

WEEKLY SCHEDULE.

I YEAR. FALL TERM.

HOUR.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
8:30	English.		English.		English.	Chem. and Phys.
9:30	Chem. and Ph.	Chem. and Ph.	Chem. and Ph.	Chem. and Ph.	Chem. and Ph. Lab.	
10:30	Math.	Math.	Math.	Math.	Math.	
11:30	French.	French.	French.	French.	French.	
1:30		Freehand Dr.		Freehand.	Dr. Chem. and Ph. Lab.	

WINTER TERM.

HOUR.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
8:30	English.		English.		English.	
9:30	Chem. and Ph.	Chem. and Ph.	Chem. and Ph.	Chem. and Ph.	Chem. and Ph. Lab.	
10:30	Math.	Math.	Math.	Math.	Math.	
11:30	French.	French.	French.	French.	French.	
1:30		Freehand Dr.		Freehand Dr.	Chem. and Ph. Lab.	

SPRING TERM.

HOUR.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
8:30	English.		English.		English.	
9:30	Chem. and Ph.	Chem. and Ph.	Chem. and Ph.	Chem. and Ph.	Chem. and Ph.	Chem. and Ph. Lab.
10:30	Math.	Math.	Math.	Math.	Math.	
11:30	French.	French.	French.	French.	French.	
1:30		Freehand Dr.		Freehand Dr.	Chem. and Ph. Lab.	

II. YEAR, FALL TERM.

HOUR.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
8:30	Math.	Math.	Math.	Math.	Math.	F. P.
9:30	Des. Geom.	Surv.	Des. Geom.	Surv.	Des. Geom.	
10:30	Geology.	English.	Geology.	English.	Geology.	
11:30	Inst. Dr.		Inst. Dr.		Mech. Eng.	
1:30		Chem. and Ph.		Chem. and Ph.	Mech. Arts.	

WINTER TERM.

HOUR.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
8:30	Math.	Math.	Math.	Math.	Math.	F. P.
9:30	Des. Geom.	Surv.	Des. Geom.	Surv.	Des. Geom.	
10:30	Geol.	English.	Geol.	English.	Geol.	
11:30	Inst. Dr.		Inst. Dr.		Eng. Math.	
1:30		Chem. and Ph.		Chem. and Ph.	Mech. Arts.	

SPRING TERM.

HOUR.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
8:30	Math.	Math.	Math.	Math.	Math.	F. P.
9:30	Des. Geom.	Surv.	Des. Geom.	Surv.	Des. Geom.	
10:30	Geol.	English.	Geol.	English.	Geol.	
11:30	Inst. Dr.		Inst. Dr.		Eng. Math.	
1:30		Chem. and Ph.		Chem. and Ph.	Mech. Arts.	

WEEKLY SCHEDULE.—Continued.

III. YEAR. FALL TERM.

HOUR.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
8:30	Math.	Math.	Math.	Math.	Math.	Eng. Lab.
9:30	German.	German.	German.	German.	German.	
10:30	R. R. Loca.	R. R. Loca.		R. R. Loca.		
11:30	Geol.		Geol.		Geology.	
1:30	Mech. Dr.		Mech. Dr.		F. P. 2 hrs.	

WINTER TERM.

HOUR.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
8:30	Math.	Math.	Math.	Math.	Math.	Eng. Lab.
9:30	German.	German.	German.	German.	German.	
10:30	Eng. Con.	Eng. Con.		Eng. Con.		
11:30	Geology.		Geology.		Geol.	
1:30	Mech. Dr.		Mech. Dr.		F. P. 2 hours.	

SPRING TERM.

HOUR.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY
8:30	Math.	Math.	Math.	Math.	Math.	Eng. Lab.
9:30	German.	German.	German.	German.	German.	
10:30	Eng. Con.	Eng. Con.		Eng. Con.		
11:30	Geol.		Geol.		Geol.	
1:30	Mech. Dr.		Mech. Dr.		F P. 2 hours.	

WEEKLY SCHEDULE.—Continued.

IV. YEAR. FALL TERM.

HOUR.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
8:30	Roofs and Br.	Roofs and Br.	Roofs and Br.	Roofs and Br.	Roofs and Dr.	
9:30	Stere.	Mining.	Stere.	Mining.	Stere.	
10:30	Civ. Eng.	Civ. Eng.	Civ. Eng.	Civ. Eng.	Civ. Eng.	
11:30				Graphic Stat.		
1:30		Mech. Dr.		Mech. Dr.	Eng. Lab.	

WINTER TERM.

HOUR.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
8:30	Hydraulics.	Hydraulics.	Hydraulics.	Hydraulics.	Hydraulics.	
9:30	Power.	Mining.	Power.	Mining.	Power.	
10:30	C. E.: R.& B. Design.		C. E.: R.& B. Design.		C. E.: R.& B. Design.	
11:30	Stere.		Stere.		Stere.	
1:30		Mech. Dr.		Mech. Dr.	Eng. Lab.	

SPRING TERM.

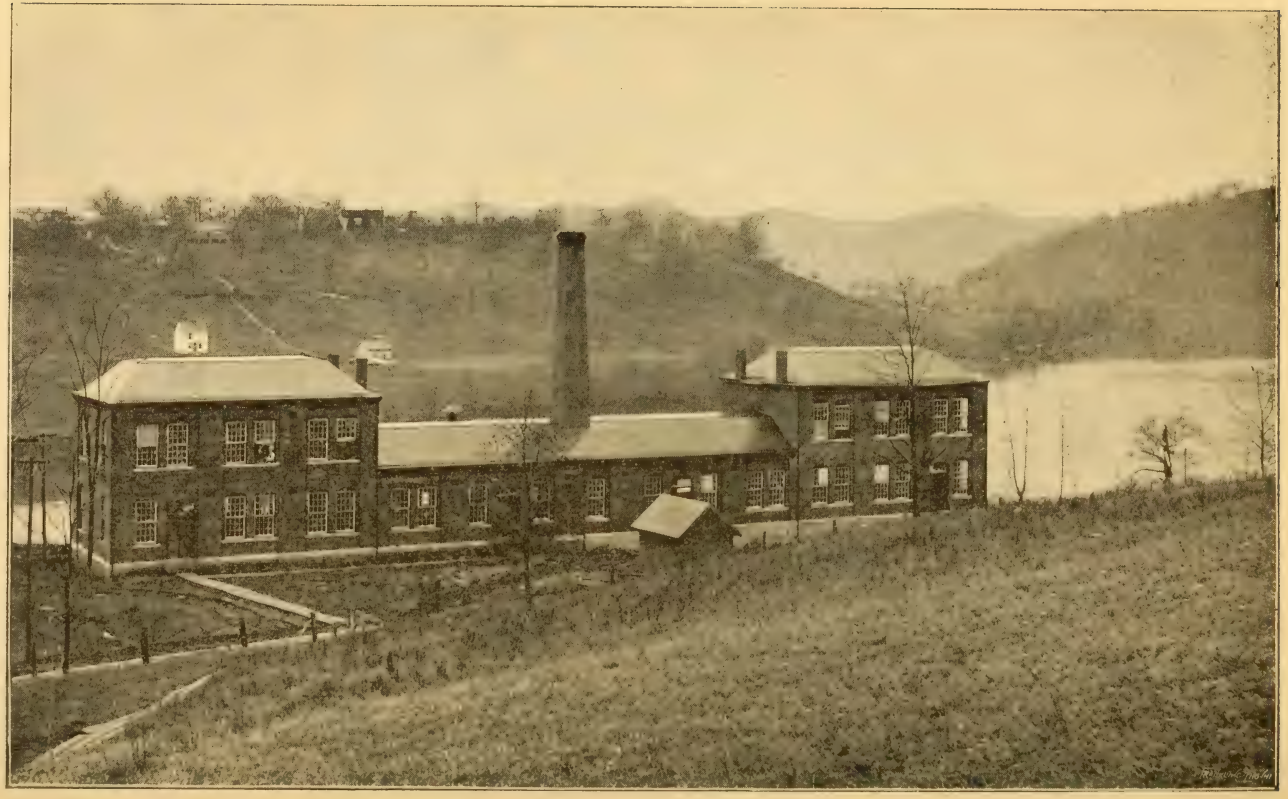
HOUR.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
8:30	R. R. Econ.	Spec.	R. R. Econ.	Spec.	R R. Econ.	
9:30	Metallurgy.	Orig. Work.	Metallurgy.	Orig. Work.	Metallurgy.	
10:30	Orig. Work.	Law of Con.	Orig. Work.	Law of Con.	Orig. Work.	
11:30					Thesis, 100 hours.	
1:30					Eng. Lab.	

TEXT-BOOKS FOR CIVIL AND MINING ENGINEERING.

Free Hand Drawing—Burns on Prospective, Models.
Mechanical Drawing—Thorne's Junior Intermediate and Senior Courses.
Descriptive Geometry—Faunce, Warren.
Surveying—Gillespie.
U. S. Coast and Goedetic Surveys.
R. R. Location—Searles' Pocket Book.
Architecture—Bullock.
Parsons on Track.
Merriman's Hydraulics.
Warren's Stonecutting.
Ihlseng's Manual of Mining.
Mahan's Civil Engineering.
Railroad Economy—Wellington.
Greenwood's Metallurgy of Iron and Steel.
Haupt on Specifications.
Roofs and Bridges—Merriman.
Gurley's Manual.

REFERENCE BOOKS.

Surveying—Johnson, Hodgman.
Descriptive Geometry—Church, Thorne.
G. & M. Survey, U. S. Coast Survey Maps—Merriman's Geodesy.
Architecture—Goodyear, Fergusson.
Roofs and Bridges—Weisbach, Dubois.
Hydraulics—Fanning, Kutter & Ganguillet.
General—Trautwine's Pocket Book.
Cullen on the Turbine—Pearson's Sewage.
Kidder's Architecture—Scientific Publications.



Mechanic Arts Building.

THE SCHOOL OF MECHANICAL ENGINEERING AND THE MECHANIC ARTS.

PROFESSOR ALDRICH.

The School of Mechanical Engineering and the Mechanic Arts was established by the Board of Regents at the annual meeting of 1891. The State Legislature had made an appropriation, earlier in the same year, providing for the erection of a suitable building for the instruction in this School. In 1893, another appropriation was made by the Legislature for building an addition to the building already erected. The School is organized into the following departments of instruction: Mechanical Engineering, Electrical Engineering, Experimental Engineering, Drawing and Machine Design and the Mechanic Arts. The Practical instruction is carried on, as far as it is possible to do so, in the Mechanical Building.

THE COURSE IN MECHANCIAL ENGINEERING.

This is a four-years' course devoted to the subjects of Mechanical and Electrical Engineering and the Mechanic Arts. There are certain studies in common with the course in Civil Engineering, and a collateral course is given in English, Mathematics, Modern Languages and Science.

The object of this course is to enable young men who have pursued successfully the prescribed studies to enter upon the proper development of their professional work with intelligence and well directed application. Whatever special branch of mechanical engineering they may enter as their chosen or prescribed field is not in any measure directly prepared for in this course. It is the purpose to give thorough technical and practical training combined with academic courses con-

taining the elements of a liberal education, as the best preparation for their future work, and as the proper foundation upon which they may build successfully their professional practice and reputation.

The technical instruction is supplemented throughout by practical instruction in drawing room, shops and engineering laboratory. Visits of inspection to industrial establishments and power plants are made whenever it is possible to arrange for them.

In general, this course has been arranged to develop the principles and to prepare for intelligent work involving the design, selection, cost, construction, installation, testing and management of power generators, prime movers, and machinery for manufacturing, transportation and power transmission; the planning, equipment, cost, construction and management of manufacturing plants, shops, factories, and systems of fire protection, lighting, heating and ventilating.

The requirements for admission, or the corresponding Scientific Preparatory Course, and the requirements for graduation leading to the degree of Bachelor of Science in Mechanical Engineering, will be found in the preceding general announcements, common to both schools.

Students are required to actively engage, for three years, in the Engineering Society. Also, at the close of each term of the Junior year and of the Fall and Winter Terms of the Senior year, to prepare an original literary production on a technical subject allied to their general engineering work of that term.

The instruction is given by lectures combined with text-book study and recitations. Engineering problems and subjects are assigned to be worked out in the library or the drawing room, in the shop or in the laboratory. The several lines of work in any given study are coordinated as far as possible, as noted under the particular studies of this department. In this way time is economized. The student concentrates his attention. The several lines of work are focalized upon the particular question, problem or project in hand.

POST-GRADUATE COURSE FOR THE DEGREE OF MECHNICAL ENGINEER.

Applicants for the professional degree of Mechanical Engineer will be required to have completed the regular and prescribed four-years' course of study leading to the Degree of Bachelor of Science in Mechanical Engineering at the West Virginia University; or to have pursued such a course, or its equivalent, at some other institution giving such or an equivalent degree. In this case, the diploma and other certificates of proficiency should be presented.

The course will consist of one year of resident study and work at the West Virginia University along the following lines:

(1). Theory and Principles of Mechanical Engineering.

Advanced work in mathematical-physics with particular reference to the science of thermodynamics and its applications in engineering; and in hydrodynamics and in electricity in magnetism.

(2). Mechanical Engineering Design.

Triple-expansion engines and pumping machinery, electrical machinery and circuits, and power and manufacturing plants. Designs to be submitted with complete sets of drawings and blue prints, specifications, bills of material and estimates.

(3). Engineering Research and Experiment.

The student will be provided with facilities for the prosecution of such original work in the field of applied science in the Engineering Laboratory of this School.

(4). Review and Report.

Of industrial, manufacturing or power plant systems and report chiefly as to the economics of engineering.

(5). Thesis for the Degree of Mechanical Engineer.

UNDERGRADUATE COURSES GIVEN IN THIS SCHOOL.

INSTRUCTION IN MECHANICAL ENGINEERING.

The several granches of instruction include: The mechanical technology of machine construction and the study of workshop appliances; mechanism and machinery for manufacturing, transportation and power transmission; the mechanics of engineering with the theory of the strength of materials and an experimental study of those most used in engineering; the thermodynamics of steam, gas, vapor and petroleum engines, compressed air working and refrigerating machinery; the generation, storage, transmission, distribution, utilization and measurement of power; the economics of engineering, cost of shop production and central station power distribution; and the journal meeting familiarizes the students with the literature of engineering journals, proceedings of technical societies, classification and indexing.

INSTRUCTION IN ELECTRICAL ENGINEERING.

Instruction is given in electrodynamics, the principles of design, construction, installation, operation, management and testing of electrical machinery, dynamos, motors, transformers and accessories; the distribution of electrical energy for light and heat and the electrical transmission of power.

INSTRUCTION IN EXPERIMENTAL ENGINEERING.

The instruction in this department is given in the engineering laboratory. The experimental work is carried along as nearly parallel as possible with the class-room instruction in the corresponding subjects for each term. Throughout such work the student is required to keep records of tests, facilitate his work by use of calculating instruments, tabulate and plot results, and make reports upon the tests in due form.

The instruction is organized in three courses:

COURSE I.—Experimental Mechanics and Engineering. Junior year.

One four-hour exercise period per week—Saturday morning.

It is required of all engineering students in any of the regular four-year courses leading to degrees in engineering. The principles of design, construction, adaptation and calibration of standard engineering instruments for the measurement of length, area, volume, weight, power, speed, temperature and pressure, combined with qualitative and quantitative experimental work, are taken up, followed by experimental work in the statics, dynamics and efficiency of mechanism and machinery, and in testing materials of engineering.

COURSE II.—Mechanical Engineering Laboratory. Senior year.

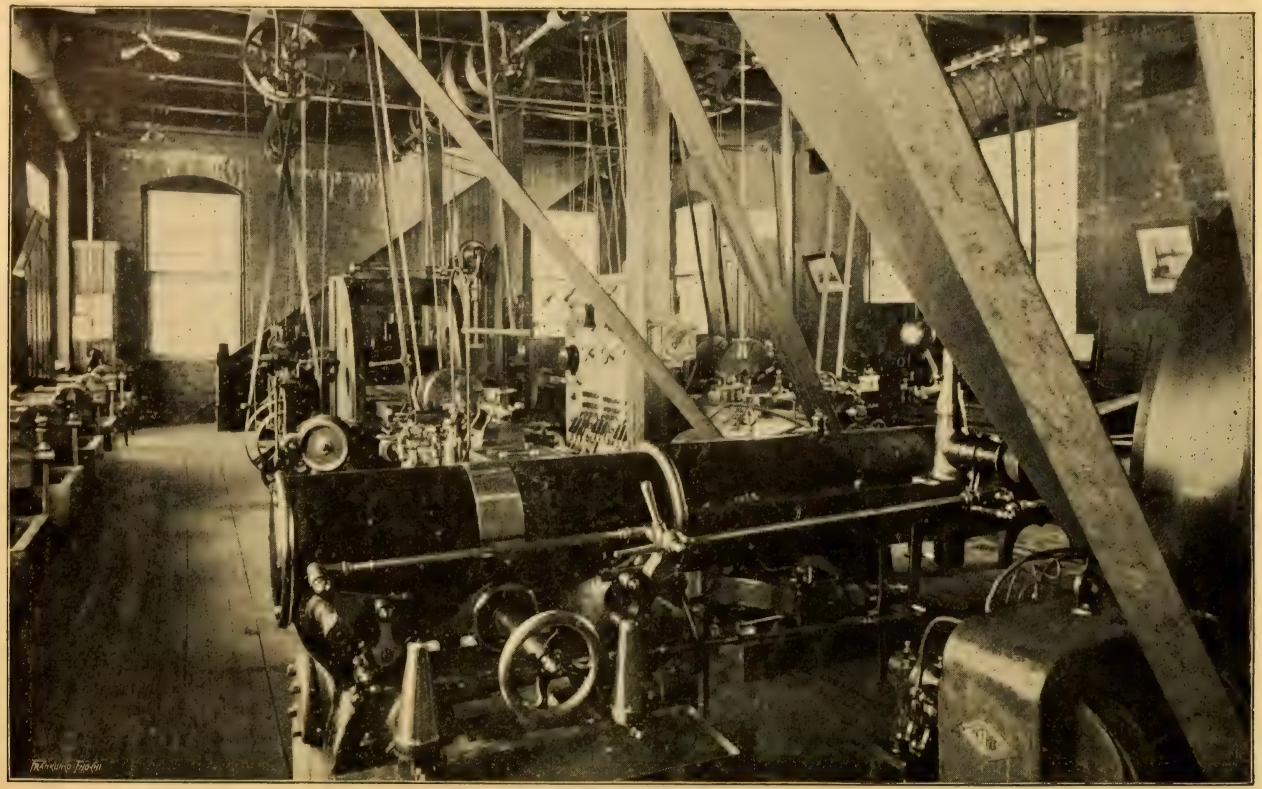
One four-hour exercise period per week—Saturday morning.

Experimental work is carried on in thermodynamics, analysis of fuels and chimney gases, quality and flow of steam, and indicator practice with valve setting; flow and discharge of water, weir measurements, testing water meters, hydraulic motors and machinery, performance of injectors and pumps; combined tests of performance of boilers, engines, dynamos and power transmission.

COURSE III—Electrical Engineering Laboratory. Senior year.

One four-hour exercise period per week—Monday.

Experimental work is given in electrical measurements, calibrations, computations and testing, with particular reference to dynamos, motors and electrical instruments and accessories of central stations, power plants and transmission machinery.



Machine Shop, Mechanic's Arts Building.

INSTRUCTION IN DRAWING AND MACHINE DESIGN.

Till the beginning of the second year the instruction in Drawing follows that of the Civil Engineering students. After that it is developed into a technical course with special reference to the requirements of the students in Mechanical Engineering.

The instruction in this department is given in the Drawing Room of the Mechanical Building. It is carried along with actual construction of typical detail machine elements in the shops. Frequent reference is made to existing works in the mechanical shops and laboratory as well as outside the institution. It affords an opportunity for the graphical treatment of engineering problems arising in the classroom instruction of any given term.

COURSE I.—Mechanical Drawing. Sophomore year.

One three-fourth-hour exercise per week—Friday afternoon.

Instruction is given in the care and use of drawing and engineering instruments, in practical geometric constructions, in the solution of selected problems in descriptive geometry having a bearing upon engineering drawing and design, in making finished drawings with ink and in tracing and blue printing.

COURSE II.—Machine Drawing and Design. Junior year.

It consists of two three-hour exercises per week during the year.

It comprises the analysis of mechanisms, machine tools and shop appliances; the designing of mechanical movements; the graphical statics of mechanisms; conventional and rational designing of structural details; adaptation of commercial sizes, proportioning fastenings, flanges, bearings, rotating pieces, connecting links, and mechanism and machinery of power transmission.

COURSE III.—Machine Drawing and Design. Senior Year.

It consists of two three-hour exercises during the year.

Designs of structural details of steam boilers and accessories of steam engines and pumping machinery are taken up, with special attention given to the analysis and design of valve gears and governors; this is followed by the assembled designing of prime motors and motive power machinery. Thesis designs are then selected or assigned for a complete set of plans for a project, such as special plant appliances, machine tools or particular manufacturing machinery, heating and ventilating systems, motive-power machinery, central station, power and manufacturing plants, with specifications, bills of material and contracts.

INSTRUCTION IN THE MECHANIC ARTS.

During the instruction in Mechanic Arts students are assigned a course of home study and reading. As far as possible it is arranged parallel to and in connection with their corresponding work-shop exercises. Recitations and examinations are held upon these and other features of the work carried on during given periods. An examination piece or project work is also assigned, according to the character of the instruction.

Through the entire course each student is required to keep an account, on suitable blanks, of his time and the material which he uses for any given work. In this way he is early acquainted with the economics of shop production by giving attention to the two elements which go to make up the cost of the same.

The instruction in this department is given in the work shops of the Mechanical Building. It is organized into two courses:

COURSE I.—One-Year Course in Mechanic Arts.

One four-hour exercise period per week, 8 to 12 Saturday morning.

It is open to all students of the University.

It is required of all Senior Scientific Preparatory students who are preparing to enter any of the regular four-year courses in Engineering and Agriculture.

It is required of all students in any of the regular four-year courses in Engineering or Agriculture, who have not taken it previously.

Instruction in carpentry, joinery and other bench work and in wood turning is followed by instruction in iron and steel forging.

COURSE II.—Four-Year Course in Mechanic Arts.

One three-quarter-hour exercise period per week throughout each year. For Mechanical Engineering Students.

Freshman Year: Carpentry, joinery and other bench work and wood turning, and iron and steel forging.—Fridays, 1:30 to 5 p. m.

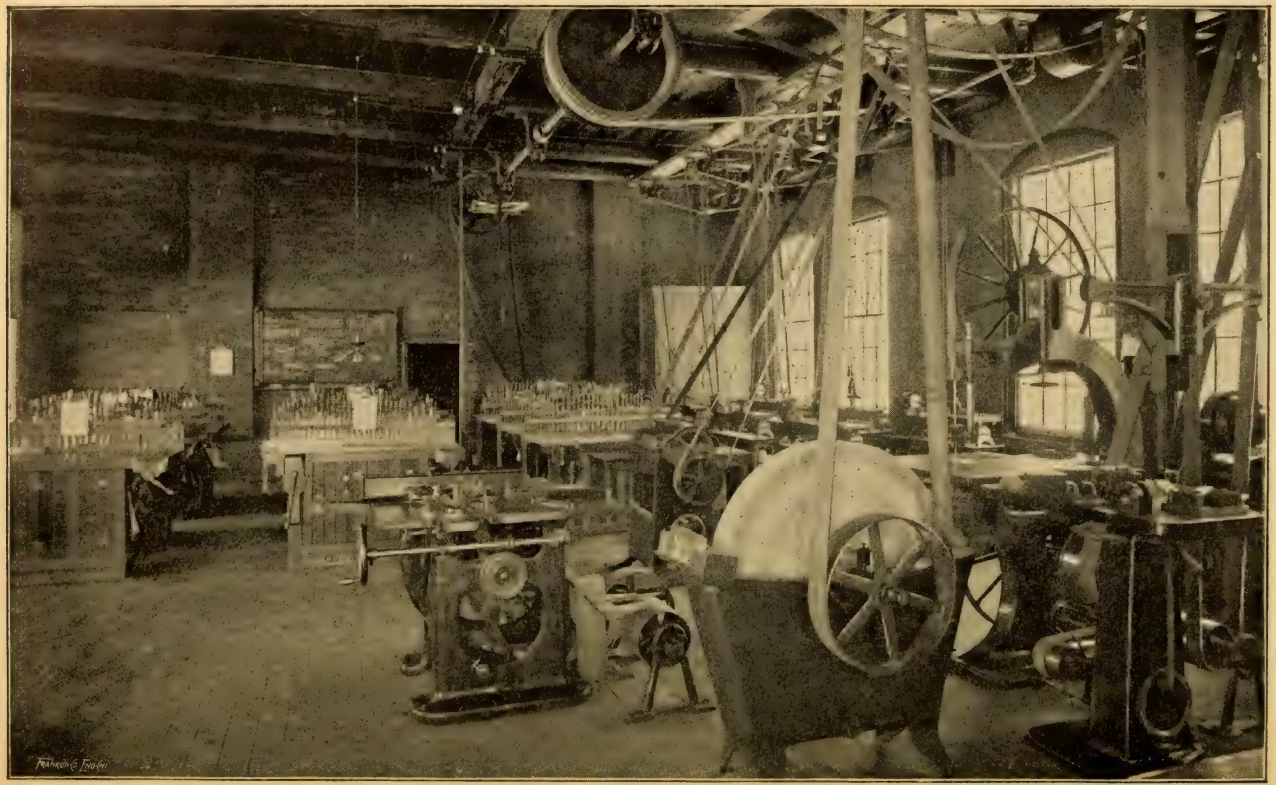
Sophomore Year: Sheet-metal work and pipe fitting; pattern making and foundry work.—Mondays, 1:30 to 3:45 p. m., or Saturdays, 8 to 12 a. m.

Junior Year: Iron work at the bench, chipping, filing and fitting, and work with machine tools.—Wednesdays, 1:30 to 3:45 p. m.

Senior Year: Machine tools and mechanical construction.—Wednesdays, 1:30 to 3:45 p. m.

FACILITIES FOR INSTRUCTION.

Practical instruction in Mechanical Engineering and the Mechanic Arts is provided for in the equipment of the Mechanical Building.



Wood Working Room, Mechanic's Arts Building.

Standard measures and calculating instruments, laboratory appliances and apparatus are provided for qualitative and quantitative experimental work in engineering.

The electric light and power plant of the University is located in the basement of the Mechanical Building. The boilers, triple-expansion engine, condensers and electrical machinery, as well as the motive-power machinery of the shop, have been specially selected and arranged for experimental work in mechanical and electrical engineering. In the Drawing Room, models of the typical valve-gears are used for instruction. Samples of raw materials and of manufactured products are collected, forming the nucleus of an engineering museum. Such machine tools and workshop appliances for working wood and metal, as well as small tools, stock and material, are supplied as will enable the work of instruction to be carried on efficiently in the Mechanic Arts.

TEXT BOOKS FOR THE SCHOOL OF MECHANICAL ENGINEERING AND MECHANIC ARTS.

Bench Work in Wood.—Goss.
First Lessons in Metal Working.—Compton.
Workshop Appliances.—Shelley.
Mechanical Technology of Machine Constructions.—Klein.
Mechanics of Machinery.—Kennedy.
Valve Gears.—Peabody.
Elements of Machine Design.—Unwin.—Bevis & Low.
Elementary Machine Design.—A. W. Smith.
Mechanics of Materials.—Merriman.
Manual of Steam Boilers.—Thurston.—Peabody.
The Steam Engine and Other Heat Engines.—Ewing.
Experimental Engineering.—Carpenter.
Mechanical Engineers' Pocket Book.—Kent.
Principles of Mechanism.—Robinson.
Materials of Construction.—J. B. Johnson.
Engineering Specifications and Contracts.—J. B. Johnson.
Heating and Ventilating Buildings.—Carpenter.

Mechanical Engineering of Power Plants.
Thermodynamics of the Steam Engine.—Peabody.
Tables of Properties of Saturated Steam.—Peabody.
Steam Engine Design.—Whitham.
Theoretical Mechanics.—Ziwet.
Notes and Examples in Mechanics.—Church.
Lettering for Draftsmen.—Reinhardt.
Electrical Measurements.—Carhart and Patterson.
Electricity and Magnetism and Construction of Dynamos.—Jackson.
Alternating Currents and Alternating Current Machinery.—Jackson.

MECHANICAL ENGINEERING COURSE—WEEKLY SCHEDULE.

FIRST YEAR.

Term.	Hour.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
	8:15	Minor English.		Minor English.		Minor English.	Physical Laboratory
	9:15	Chem. & Physics.	Chem. & Physics.	Chem. & Physics.	Chem. & Physics.	Chem. & Physics.	
	10:30	Math. (1)	Math. (1)	Math. (1)	Math. (1)	Math. (1)	
	11:30	Minor French.	Minor French.	Minor French.	Minor French.	Minor French.	
	1:30		Free Hand Draw.		Free Hand Draw.	Mechanic Arts.	

SECOND YEAR.

Term.	Hour.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
	8:15	Math. (2)	Math. (2)	Math. (2)	Math. (2)	Math. (2)	Mechanic Arts, or
	9:15	Descrip. Geometry.	Mech. Technology or Surveying.	Descrip. Geometry.	Mech. Technology or Surveying.	Descrip. Geometry.	Field Practice.
	10:30	Geology. (1)	Major English.	Geology. (1)	Major English.	Geology. (1)	
	11:30		Major Physics.		Major Physics.		
	1:30	Mechanic Arts.	Chem. Laboratory.	Physical Laboratory	Chem. Laboratory	Mechanical Drawing	

MECHANICAL ENGINEERING COURSE—WEEKLY SCHEDULE.—Continued.

THIRD YEAR.

Term.	Hour.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
	8:15	Mechanics.	Mechanics.	Mechanics.	Mechanics.	Mechanics.	Engineering Laboratory.
	9:15	Minor German.	Minor German.	Minor German.	Minor German.	Minor German.	
Fall. Winter.	10:30	Applied Math.	Mech. & Mach'y.	Applied Math.	Mech. & Mach'y.	Mechan'l Technol'y.	
Spring.	10:30		Machine Design.		Machine Design.		
Spring.	11:30	Geology. (2)		Geology. (2)		Geology. (2)	
	1:30	Electrical Meas.	Journal Eng'g.	Mechanic. Arts.	Drawing & Design'g.	Drawing & Design'g.	

FOURTH YEAR.

Term.	Hour.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
Fall.	8:15	Heating & Steam Distribution.		Heating & Steam Distribution.		Heating & Steam Distribution.	Mechanical Lab.
Winter.	8:15	Hydraulics.		Hydraulics.		Hydraulics.	
Spring.	8:15		Specif. & Contracts.	Hydraulic Mach'y.	Specif. & Contracts.		
Fall.	9:15	Thermodynamics.	Thermodynamics.	Thermodynamics.	Thermodynamics.	Thermodynamics.	
Winter.	9:15	Steam Eng'g. (2)	Valve Gears.	Steam Eng'g. (2)	Valve Gears.	Steam Eng'g. (2)	
Spring.	9:15	Econom. of Eng'g.	Power Trans.	Econom. of Eng'g.	Power Trans.	Econom. of Eng'g.	
Fall.	10:30	Elect. & Magnet'm	Designing Boilers.	Elect. & Magnetism.	Designing Boilers.	Elect. & Magnetism.	
Winter.	10:30	Dir. Cur. Mach'y.	Designing Engines.	Dir. Cur. Mach'y.	Designing Engines.	Dir. Cur. Mach'y.	
Spring.	10:30	Alt. Cur. Mach'y.	Power Plants.	Alt. Cur. Mach'y.	Power Plants.	Alt. Cur. Mach'y.	
	11:30						
	1:30	Elect. Labor'y.	Journal Eng'g.	Mechanic Arts.	Drawing, Designing.	Drawing, Designing.	

THE LAW COLLEGE.

EX-JUDGE OKEY JOHNSON,

Dean and Professor of Constitutional Law, International Law, Corporations, Criminal Law, Criminal Procedure and Parliamentary Law.

ST. GEORGE T. BROOKE,

Professor of Common and Statute Law.

W. P. WILLEY,

Professor of Equity Jurisprudence, Commercial Law and Evidence.

The Law Department of the University aims to prepare students for the practice of law in any part of the United States.

It aims to make not merely theoretical but practical lawyers who will go from the lecture room to the bar thoroughly equipped for the active duties of the profession.

It aims, moreover, while making thorough lawyers, to give the student a correct conception of the scope and character of his profession and to start him in life with a high idea of professional ethics and dignity.

THE COURSE.

The full course covers the branches of Common and Statute Law, Corporations, Criminal Procedure, Constitutional and International Law, Commercial Law, Criminal Law, Maratime Law, Equity Jurisprudence, Evidence, Pleading and Practice.

The text-books used in the course of Common and Statute Law are

Blackstone's Commentaries, Shipman on Pleading, Notes on Common Law Pleading and Practice in West Virginia by Professor Brooke, Williams on Real Property, and for reference the Code of West Virginia and subsequent Acts of the Legislature.

The text-books are supplemented by lectures each day, and it is the endeavor so to incorporate in them the statutory changes in the Common Law as to render it unnecessary for students from other States to incur the expense of purchasing the West Virginia Code and subsequent statutes.

The text-books used in Constitutional Law are the "Federalist" and Cooley's Principles of Constitutional Law. This, however, is supplemented by lectures upon our Constitutional history from the Colonial period through the Continental and Confederation eras successively to the adoption of our present Constitution in 1788. The Constitution itself, and the decisions of the Supreme Court of the United States interpreting its provisions, are also the subjects of lectures.

The text-book used in International Law is Glenn's International Law.

The text-book used in Criminal Law is Clark's on that subject; in Criminal Procedure, Clark's Criminal Procedure.

The text-book on Corporations is Angell and Ames on Corporations.

The text-books used in Parliamentary Laws is Roberts' Rules of Order.

The text-books in the branches of Equity Jurisprudence and Mercantile Law are Bispham's Equity and Bishop on Contracts, with reference to Parsons, Story, Barton, Addison and other authors.

The course of lectures and study in Equity embraces:

The Origin and History of Equity Jurisprudence;

The general heads of Equity Procedure, and the nature and scope of Equity Jurisdiction; Equity Pleading and Practice.

Lectures on Mercantile Law embrace the whole range of topics properly belonging to this department, including the laws relating to Mercantile Persons, Traders, Partners, Joint Stock Companies, Corporations, Principal and Agent; the Law of Mercantile Property—Mercantile Contracts, such as Bills of Exchange and Promissory Notes, Contracts with Carriers, Insurance, Hiring and Service, Sales, Guarantees, Mercantile Remedies, etc.

The lectures are supplemented by practical application of the principles in the Moot Courts.

TERMS AND TOPICS.

Three terms constitute the school year, and the entire course is covered by the lectures of one year, thus enabling the student, if he

is prepared for it, to complete the course in one year. But whether he shall give one or two years to the course is determined by his qualifications when entering. The Junior and Senior divisions of the course are found on a subsequent page.

As one term is not dependent on another, as respects many of the topics, a student may enter at the beginning of either term; but it is always advisable to enter during the Fall term if possible.

The work of the year is divided among the three terms as follows:

FALL TERM.

Constitutional Law. International Law. Corporations. Criminal Law. Parliamentary Law.	DEAN JOHNSON.
Rights of Persons and Things—Blackstone. Common Law Pleadings.	PROF. BROOKE.
Contracts. Negotiable Instruments. Equity Pleadings. Evidence. Sales.	PROF. WILLEY.

WINTER TERM.

Constitutional Law. International Law. Corporations. Criminal Law. Criminal Procedure. Parliamentary Law.	DEAN JOHNSON.
Blackstone, 1st and 2d books (continued.) Blackstone, 3rd book (begun.)	PROF. BROOKE.
Agency. Partnership. Surety and Guaranty. Practice in the Courts. Equity—Accidents, Mistakes, Frauds, etc. Evidence.	PROF. WILLEY.

SPRING TERM.

Constitutional Law. International Law. Corporations. Criminal Procedure. Parliamentary Law and Practice.	DEAN JOHNSON.
Blackstone, 3d book. Real Property.	PROF. BROOKE.
Bailments. Practice in the Courts. Insurance. Equity.	PROF. WILLEY.

The following are the Junior and Senior divisions of the course:

JUNIOR COURSE.	SENIOR COURSE.
Blackstone.	Common Law Pleading.
Common Law.	Real Property.
Statute Law.	Negotiable Paper.
Torts.	Partnership.
Criminal Law	Suretyship and Guaranty.
Criminal Procedure.	Evidence.
Contracts.	Equity Pleading and Practice.
Agency.	Sales.
Bailments.	Corporations.
Insurance.	Practice in the Courts.
International Law.	Constitutional Law.
Parliamentary Law.	

METHODS OF INSTRUCTION.

The methods of instruction consist of Lectures and Examinations, from approved text-books read in course, the drawing of the various legal papers requisite in the ordinary practice of the law, and the Moot Courts.

Each day before the lecture, there is an oral examination on the subject of the lecture of the preceding day and of such portions of the text-books as were the subjects of the lecture.

Besides the daily examinations there will be rigid and comprehensive examinations on each topic as completed, and for candidates for graduation a review on the entire course. They will all be in writing.

MOOT COURTS.

However familiar the student may be with the principles and theories of law in all its branches, he will be more or less awkward and confused when he goes to the Bar and attempts for the first time to make a practical application of legal remedies, unless he has been previously drilled on this behalf. The Moot Court supplies, as well as anything other than a judicial tribunal can do, the drill and discipline necessary to prepare the student for the trial tables. In these courts he is taught to apply legal remedies according to the common law and chancery systems of practice; to bring suits; draw papers, pleadings, briefs, etc., and take the various steps incident to bringing a cause to trial, and then to try it according to the rules of evidence, including the argument, charge, verdict, motion in arrest of judgment, writ of error, etc. The Moot Court is organized and conducted in strict conformity to the practice of the regular courts in all its details. The students themselves act respectively as counsel, jurors, witnesses and officers of the court, thus learning by actual doing all the forms of court practice; while a Professor sits as Judge, with the double aim of illustrating the legal principle involved and explaining the rules of practice. The grammatical accuracy, rhetoric, elocution and courtesy of deportment of students also come under review by the Professor, and young men are thus fitted to appear and conduct themselves at the Bar as gentlemen and scholars as well as lawyers. The system of Moot Court is thorough.

Each of the Professors holds Court once a week, in his room, for the trial of law cases.

There is a Supreme Court of Appeals composed of all three Professors, the Dean sitting as President of the Court, to which all appeals from decrees and writs of error to his judgment, rendered in the three several Circuit Courts, may be taken. The system works admirably, and gives the student the practice in all the courts, following his case from the Circuit Court, where it is brought, to the Supreme Court of Appeals, which determines finally all cases. Trials are occasionally held in Commencement Hall and are open to the public.

REQUIREMENTS FOR ADMISSION AND DEGREES.

Any person is at liberty to enroll in this College, and be admitted to attendance upon the lectures. However, if the person applying for admission intends to be a candidate for the degree of Bachelor of Laws, he must have reached such an age and made such attainments in general education as shall satisfy the Faculty, after examination,

that he can creditably enter upon the practice of law when his legal studies are completed. Ladies are admitted on the same terms as gentlemen.

The Law College does not hold itself responsible for anything but the attainments of the student in his law studies; nevertheless, the degree of his proficiency in the English branches is estimated in grading him for a degree in law If a student realizes that he is deficient in general education, he can enter some of the classes in either the Preparatory School or the other Colleges of the University in connection with his law studies. But this is a matter resting entirely with the student.

The qualifications of a student for receiving the degree of Bachelor of Laws are not measured by the time he has spent in completing the course; that may be one year, or two years, or many years. But the sole test of his title to the degree is his work in the classes and his ability to successfully pass a rigid examination on the whole course and thus demonstrate that he is worthy of it. The value of a diploma from this department will not be impaired by conferring it where it is not merited. Therefore, time is not made a test in any case, except that a student must have been in attendance upon the lectures at least one scholastic year before he is admitted to the examination for a degree. If he fails to reach the standard in his first examination, he may apply for a second examination one year thereafter, whether he has continued in attendance at the University or not.

Although a student will not be admitted to an examination for any of the degrees of the Law College until he has been in attendance upon the Law College for two years; yet a student may, on matriculating, apply to the Law Faculty for advanced standing, and on satisfying the Law Faculty by examination and otherwise, that he has completed the branches included in the Junior year, or their equivalent, he may be permitted to enter the Senior class and become a candidate for a degree at the end of one year.

It is the privilege also, of any student to undertake to complete the whole course leading to the degree of Bachelor of Laws in one year, if he thinks himself competent to do so; but he will be awarded the degree at the end of that period only on condition that his average on all the branches reaches 9 on a scale of 10.

Any student who completes less than the whole course, will be awarded a certificate by the Law Faculty for the work done and the time spent in the Law College.

DEGREES CONFERRED.

The degrees offered in this College are: Bachelor of Laws, and Bachelor of Arts in Law.

The regular law degree—Bachelor of Laws—requires the completion of the full law course as set forth on preceding pages. Students receiving this degree are admitted to practice in any of the courts of this State without examination, by act of the Legislature. Students from other States are accorded the same rights, and their certificates of admission entitle them to practice in most of the other States.

The degree of Bachelor of Arts in Law requires the completion of the course in law, together with a selection from the branches comprised in the regular course for the Bachelor of Arts degree, sufficient to occupy the four years' course required for the latter degree. See "Requirements for Degree of Bachelor of Arts in Law," page 25.

EXPENSES.

Tuition in the Law College is free to West Virginia students.

Students from other States are charged $8.00 a term, or $24.00 a year.

The ordinary expenses for boarding, etc., are as low as at any other University town in the United States.

The summary of the expense of boarding, etc., given on a preceding page of this catalogue, is carefully made, and may be relied upon as a guide to those who contemplate entering the law department.

The text-books absolutely essential to the student in pursuing the prescribed course of study are not numerous or costly, and are such as will be useful to him throughout his professional career.

The text-books absolutely essential to the successful prosecution of the studies of the law school are: Blackstone's Commentaries, Shipman on Pleading, Williams on Real Property, Underhill on Evidence, Bishop on Contracts, Bispham's Equity, The Federalist, Glenn's International Law, Cooley's Principles of the Constitution, Clark's Criminal Law and Clark's Criminal Procedure. These books are kept at the University and sold to the students at cost.

ADVANTAGES OF A UNIVERSITY LAW COURSE.

The increasing favor with which Law Schools are regarded is due to the higher standard of preparation necessary to enable a lawyer to attain eminence in the profession, as compared with a past age. The lawyer who now aspires to occupy a high position at the bar must be thoroughly equipped. The competition he must meet demands a broad culture, scholarly discipline and a thorough mastery of the principles of Law. Law Schools have largely contributed to the elevation of the standard. They are now regarded as essential to the legal profession as the Medical College and Theological Seminary are to the medical and clerical professions.

The advantages of a University Law course can scarcely be overestimated to the young man who aspires to become thoroughly fitted for the profession of law, constantly proving the old maxim, that "he who is not a good lawyer when he comes to the bar, will seldom be a good one afterwards."

The almost universal experience is that when a young man sits down in a law office to prepare for the bar, he becomes impatient to engage in the active business of his profession with which he is surrounded. He makes haste to finish rather than master the course. The active practitioner under whom he is reading is engrossed with the cares of his business and gives him but little attention. He reads in a superficial manner enough branches to enable him to secure license to practice, believing that he will have time enough when he is already admitted to the bar to finish his studies. But the ground work of a successful professional career is forever neglected, as a rule.

The University course brings the student in constant association with those who are making mental discipline a business; it surrounds him with influences that are elevating and refining; produces habits of application which he will seldom acquire in any other place, and without which he will never make a lawyer.

The advantages of access to a large and well selected law and miscellaneous library, and the valuable drill of the Literary Societies and Moot Courts are of no small consideration.

EMINENT OPINIONS.

The time has gone by when an eminent lawyer, in full practice, can take a class of students into his office and become their teacher. Once that was practicable, but now it is not. The consequence is that law schools are now a necessity.—The Late Chief Justice Waite.

There is little, if any, dispute now as to the relative merit of education by means of law schools, and that to be got by mere practical training or apprenticeship as an attorney's clerk. Without disparagement of mere practical advantages, the verdict of the best informed is in favor of the best schools.—Report of the Committee on Legal Education, to the American Bar Association, August 21, 1879, at Saratoga, New York.

Professor Bryce, in "The American Commonwealth," attributes the superior attainments of the members of the legal profession in the United States "to the extraordinary excellence of many of the law schools."

Mr. Heron, of Dublin, in his work on the history of Jurisprudence, declares that in the matter of legal reform, and in that of legal authorship, the United States have surpassed England, and he attributes the

fact "to the superior legal education which the American lawyers receive, and to the schools of law established throughout the United States."

Lord Chief Justice Russell, of England, in a learned article on "The Bar as a Profession," published in the Youth's Companion of February 20, 1896, (Mr. Justice Holmes of Massachusetts having published an article on the same subject in the same paper), said: "Mr. Justice Holmes speaks with just pride of the system of legal education in the United States. It is, in my opinion, far superior to that existing in these islands. Its superiority, I think, mainly consists in its systematic teaching of the historical and scientific aspects of law before the actual practical workaday law is dealt with. To the absence here of this system, I largely attribute the fact, which I deplore, that with but few exceptions, our legal treatises are analyses of decided cases. Our legal arguments at the bar are a nice discrimination of those cases, and the deliverances from the judges but little more than able efforts to establish analogies or differences between the case in hand and reported authority."

SUMMER LAW SCHOOL.

ANNOUNCEMENT OF SUMMER TERM.

The second regular Summer term of the West Virginia University Law School will open Tuesday, June 22d, 1897, at 8:00 a. m., and continue for six weeks, ending Tuesday, August 4th, 1897. Instruction will be given by all the Law Faculty.

ADMISSION.

The courses offered are open to all persons who may desire to take advantage of them; no preliminary examination for admission is required.

In other schools experience has shown that the Summer courses are of special advantage to the following persons:

First. Those who are preparing to be examined for admission to the bar in West Virginia and elsewhere.

Such students, whether they have finished their previous studies in a law school or in an office, find it very helpful to have a comprehensive and systematic review of the main branches of the law, before presenting themselves for admission to the bar. The needs of such students are constantly in view.

Second. Those who desire an outline survey of the general field of law, together with a discussion of the general principles, authorities and cases, before entering upon the details in legal studies required for admission to the bar. This will certainly simplify and give greater zest to the instructive details that must be mastered.

Third. Students in this and other law schools who wish to review the main subjects of their course, to assist them in their final examinations, the passing of which is essential to their degree.

Fourth. Young attorneys who have not had the advantage of a regular drill in the law school, and desire to spend their summer vacation in a more systematic study of the law than they can possibly take in their offices, as well as to familiarize themselves with Court practice by taking part in the regular Moot Court exercises of the Law School.

The following regular courses are given during the Summer term, and all students registered in the school are entitled, upon the payment of the fee, to instruction in all the courses:

1.—Corporations. 2.—Criminal Law. 3.—Criminal Procedure.	DEAN JOHNSON.
4.—Torts. 5.—Real Property. 6.—Pleading.	PROF. BROOKE.
7.—Contracts. 8.—Equity. 9.—Evidence.	PROF. WILLEY.

HOURS AND METHODS OF INSTRUCTION.

The regular class room work covering the nine general courses will occupy three hours a day, or eighteen hours a week: making one hundred and eight hours for the term.

The method of instruction is by lectures, supplemented by examinations each day on the previous lecture and examination and discussion of leading and illustrative cases, and collateral reading. The students will have the benefit of the Law Library.

One of the principal features of the Summer School work will be Court Practice. Court will be held every day, which will be presided over by one of the Professors and conducted in strict conformity with the practice in the Circuit Courts, thus affording young attorneys just entering the Bar, or who have had but little practical work, a valuable drill in the development and trial of all kinds of cases. Students

may enter this department exclusively on payment of a proportionate fee, if they do not desire to pursue the entire course.

General expenses are the same as to the students at the University, after the tuition-fee is paid.

The fee for the whole course of one hundred and eight hours is $30.00, payable in advance, to the Dean of the Law Faculty, at his lecture room in the University Building, where each student will be registered, and then will be entitled to all the privileges of the Course.

All applications for entering the Summer Law Course should be made by letter, addressed to the Dean, before the 10th day of June, enclosing entrance fee of $5.00, which will be credited on their fee for the full term when the class is formed.

Grounds and Some of the Buildings.

SCHOOL OF PEDAGOGY.

PROFESSOR MILLER.

This is a day of specialization. To be successful in any high degree, each individual, by special application and discipline, prepares himself for the kind of work in which he would engage. After two or three years of careful study, the law student rounds out his course with a degree at the University Law School. The medical student is not recognized in his profession until he has had years of training under skillful guidance. For a long time any one was allowed to preach, but now most denominations require a course at a theological seminary, and this often after a regular college course of four years. There is a growing conviction that teaching, as well as law, medicine or theology, is a science, and demands thorough professional training. Shall less be required of the instructors of the youth of our land? This question is being answered very emphatically in the multiplied agencies for increasing the efficiency of the teaching-force of to-day, such as Schools of Methods, Departments of Pedagogy, Educational Psychology, etc. A writer in a recent number of an educational journal states that within the last ten years not fewer than seventy-five colleges and universities in the United States have established Chairs of Pedagogy, or give instruction in the Art and Science of Teaching.

The University being recognized as the head of the educational system of the State, should supply the demand made upon it for furnishing the normal schools, academies, and more advanced grades of public schools with superintendents, principals and assistants.

Many of the best educational positions in West Virginia are now filled by graduates of the University, and there is an increasing demand, here and elsewhere, for men and women competent to take charge of schools of high grade. Encouragement to teachers with this degree of proficiency, is found in the fact that salaries have been increased very materially within the last few years.

In offering these courses, the University does not enter into competition with existing institutions in the field of normal or academic instruction; and while the courses of this department are open to all collegiate students, it is suggested that they will prove most helpful to those who are advanced in their other studies, particularly in English. In order to pursue the course in Child-Study, the student must have some knowledge of Psychology.

The objects in offering a course in Pedagogy in this institution are:

I. To prepare University students for the higher positions in the public schools of the State.

II. To aid in harmonizing our educational system by bringing the secondary schools into closer relations with the University.

III. To secure to teaching the rights, prerogatives and advantages of a profession.

This course includes, as exhibited below, Science and Art of Teaching, History of Education, Educational Psychology, School Management, State Laws and Requirements for Free Schools, Methods, etc. Five hours a week throughout the year are given to the exercises of the course. Over two hundred of the latest and best works on Pedagogy and other educational subjects have been added to the University library, and the number of works in these and kindred subjects will be constantly increased.

COURSES OF INSTRUCTION.

1. Practical.—Embracing the organization and management of schools; courses of study; supervision in city, town and district schools; school buildings and appliances; school law, etc.

2. Scientific.—A study of the principles underlying the art of teaching; educational psychology; the philosophy of education.

3. Historical.—Origin and growth of the school system in West Virginia; the history of education in the United States; education in various ages and countries; eminent educators and educational epochs.

4. Child-Study.—This course will deal with the physical, intellectual and moral development of children, as far as such investigation is possible with the means at command. In other words, the being to be educated will be studied along with the methods of educating him. The work will consist of original investigation as related to the observation and experience of the student, to a study of the statistics and data concerning the development of the senses, emotions, etc., collected from various schools, and of studies in the literature of the subject. The educational journals of the day are replete with the discus-

sion of the subject of Child-Study; in fact, it may be denominated the educational "fad" of the hour, but from this careful study of child-nature will come much that is helpful and valuable to both parent and teacher.

These courses are distributed as follows:

FIRST YEAR.

Fall Term—History of Education in West Virginia; Morgan and Cork, and lectures; Elements of Pedagogy; White.

Winter Term—Education in the United States, Boone; Theory and Practice; Page and DeGarmo; School Hygiene.

Spring Term—School Management, White; Educational Reformers, Quick; Child-Study.

SECOND TERM.

Fall Term—Grading and classification of Schools according to the Manual of State Superintendent Lewis; School of Supervision, Payne; School Systems—District, County and State.

Winter Term—Compayre's Lectures on Pedagogy; Educational Psychology, with collateral reading; Methods of Teaching.

Spring Term—Compayre's History of Pedagogy; Papers and Discussions; Child-Study and original investigation.

These courses will be supplemented by lectures and collateral readings, the Pedagogical Library and educational magazines furnishing abundant material for wide investigation in this field. A regular course of reading has been outlined for this department, and students are required to prepare papers and critiques on the various topics presented.

The recitation hour is 11:30 daily, and, when necessary classes are organized for afternoon work.

COMMERCIAL SCHOOL.

D. M. WILLIS.

All students in this school are under the control of the teachers in charge of the School, so far as their work is in this School.

ANNOUNCEMENT.

There are Business Colleges and Commercial Schools, but these do not demand that high standard of their graduates which should characterize the commercial training of this age. The object of this School course is to lay simply the foundation for qualifying thoroughly the student for the work of commercial life. The commercial college graduates should be able to enter upon their career as "business men," but they are not. The "business man" of to-day is a dominant factor in all industrial and commercial enterprises. He is one of the great pillars of society. He has become one of the controlling agents and forces in all commercial, political, social, moral and church affairs. He is one of the indispensable agents in all religious, charitable and philanthropic efforts. From this rank are drawn some of the best men to fill legislative halls in State and Nation. He is such a potent factor in the world of activities that the time has come when he needs a special discipline and culture which will enable him to do his work successfully and take at once first rank as a professional "business man." This School can only lay the foundation for such a thorough commercial education as is now in demand. It makes no pretentions at graduating students.

STATEMENT.

The instruction of this course is given, mainly in connection with the work done by the Professors in other Colleges of the University or in the Preparatory School.

The curriculum of study has been articulated with other courses so as to provide a course without any additional professors for studies already taught in the University.

COMMERCIAL COURSES OF INSTRUCTION.

I.—MINOR COURSE.

Section 1.—English.—English Grammar, Analysis, Composition and Rhetoric.

The essentials of English Grammar will be required; an ability to analyze English sentences correctly; a sufficient knowledge of composition to enable the candidate to write with ease and precision a business letter or composition on an assigned subject, correctly applying the rules of orthography, of the use of capitals, of punctuation, etc., and a knowledge of Rhetoric such as is contained in Genung's Outlines of Rhetoric.

Sec. 2.—Arithmetic.—Completed; Ray's, Greenleaf's or equivalent.

Sec. 3.—Algebra.—Elementary Algebra; Ray's, Milne's or equivalent completed.

Higher Algebra; Wells' University Algebra, or Ray's Higher Algebra to Theory of Equations.

Sec. 4.—Geometry.—Plane Geometry, completed; Wells' or Brook's Geometry or equivalent.

Sec. 5.—History of the United States, Fiske or Montgomery.

Sec. 6.—Elementary Science.—Physiology and Hygiene, Hartigan, Steele or Cutter, equivalent of High School Course; and Field Botany, Wood's text or equivalent; or an equivalent in Natural Philosophy may be substituted—Gage's Introduction to Physical Science, Avery, Steele, or its equivalent.

Sec. 7.—Physical Geography.—Academic College Geology.

I. Minor Course, Section 1, by Prof. Brown.

Sec. 8.—Industrial Drawing.—Elementary Free Hand and Simple Instrumental Drawing, equivalent to about one hundred hours of instruction.

In general, all candidates for admission to the Major Course should have satisfactorially completed the Minor Course or its equivalent.

An accurate and working knowledge of the fundamental elements of a thorough education should be acquired. Having done this, the Major Course can be pursued to advantage.

II.—MAJOR COURSE.

In order to accommodate the student who can not conveniently take the full course, but desires a knowledge of Book-keeping, Stenography, etc., the following arrangements have been made.

Any student wishing to enter this School for Book-keeping, may do so, if he can pass satisfactorily the required examinations in Mathematics and English Grammar, or produce satisfactory certificates of proficiency in these branches.

Students wishing to enter for Stenography may do so by passing a satisfactory examination in English, or on presenting satisfactory certificates of proficiency in the elements of English.

Section 1.—Penmanship.—The course of study is systematically arranged; both slant and vertical writing are taught. The systems have been produced after many years of experience and observation; they are free from all intricate and unmeaning analysis. The course embraces vertical and slant writing, Business, Ornamental Writing, Pen Drawing, Engrossing, Old English and German Lettering, Stipple Work, India Ink Shading, etc.

Sec. 2.—Book-keeping.—The instruction is both theoretical and practical. After students have acquired a knowledge of the fundamental principles of beek-keeping, they are required to enter the practical department, where they are drilled in the more advanced and comprehensive books. They enter into real business practice. After completing the work in this department, they take up the various sets, as Coal, Lumber, Shipments and Consignments, Jobbing and Manufacturing, Installments and State Agencies, Partnerships and Joint Stock Companies and Railroading and Banking. Each pupil keeps a set of books for the various branches of business named above.

Sec. 3.—Commercial Law contains a concise, yet fairly comprehensive treatment of Contracts, Negotiable and Accommodation paper, Sales of Personal Property, Partnerships, Corporation and Joint Stock Companies, Guaranty and Suretyship, Common Carriers, Inn Keepers,

Bailments, Insurance, Liens, Interest and Usury, Telegraph and Telephone Companies, Copyrights, Trade Marks, Landed Property, Real Property, Real Estate, Conveyances, Landlord and Tenant, Domestic Relations, Master and Servant, Husband and Wife, and all ordinary legal business forms.

Sec. 4.—Stenography is one of the requirements of the Commercial Course. The instruction embraces a comprehensive drill on all elementary principles and characters, progressive dictation, introduction of word-signs and phrase words, phrasing, constant speed practice, the writing and transcribing of business letters upon the typewriter, law testimony, essays, speeches, sermons, legal documents and court reporting. Students of this course have special advantage in court reporting. They are required to go into the Law College and report the cases in the Moot Courts.

Sec. 5.—Typewriting.—The recognized standard machines are used for instruction and use of students. The instruction includes a thorough drill in finger exercises, in the mechanism of the different machines and in taking proper care of them and in adjusting any derangement in the mechanism. The instruction includes also the writing of letters, legal papers, law briefs, specifications, affidavits, testimony and tabulating. The use of the Neostyle Duplicator, the Mimeograph and other duplicating apparatus, is taught.

SCHOOLS OF MILITARY INSTRUCTION AND PHYSICAL TRAINING.

PHYSICAL TRAINING SCHOOL.

JAMES W. HARTIGAN, M. D., Instructor.

At a meeting of the Board of Regents in July, 1893, this school was organized. All students entering the preparatory or freshman classes are required to enroll in this school for two years. The object of the school is to combine military instruction with physical training in such a way as to beget the habit and desire in the student to be prompt, obedient and efficient in the discharge of his duties, to confine athletics within reasonable bounds, and to direct physical education in more healthy channels, that it may act as an adjunct to mental development.

Many young men when entering college come from an active life and lapse into the sedentary habits of the student, or being suddenly released from the restraints of home, devote too much time to athletics. This school is intended to correct both evils. The time devoted to it is five hours per week throughout the year, and the instruction is as set forth below:

	Fall Term.	Winter Term.	Spring Term.
Military School....	3 hours.	3 hours.	4 hours.
School of Physical Training..	2 hours.	2 hours.	2 hours.

All male students entering the preparatory or freshman classes are required to take this course for two years.

The school has a well equipped gymnasium with plunge and shower baths attached. It has a limited number of good boats, and it is hoped that in a few years boating will be one of the most attractive and beneficial features of this work, as the University is located on one of the most beautiful boating courses in the country.

Students taking this course will provide themselves with towels and one pair of rubber shoes. Only members of special sections will be required to procure gymnasium suits.

All students will be given a critical physical examination upon entering. An accurate record will be kept and each will be assigned the special work his examination shows him to need. The examinations will be repeated from time to time during the year, so that the instruction may be intelligently and profitably directed.

The instruction here will aim not only to the preservation of health during the mental toil of a college career, but also to the correction and perfect development of the whole physical organization.

COURSE OF INSTRUCTION.

FIRST YEAR.

The fall term will be given to light gymnastics. The pupils will be drilled to music in the simple motions of stepping, charging, lunging, hopping, running, etc. The winter will be given to other free gymnastic movements, including the various head, neck, eye, chest, waist and extremity exercises. During the spring term the time will be given to instruction in calisthenics, figure marching, running and light dumbbell exercises.

SECOND YEAR.

During the fall term the light dumbbell exercises will be continued with exercises in vaulting, jumping, and club swinging. The winter term will be devoted to club swinging, chest machine work, ladder and bar-bell exercises, and the spring term to horizontal and parallel bar work, boxing and ring exercises.

After the completion of this course, students who do not take the advanced military course will be required to take gymnasium work one hour a week during their attendance at the University.

This does not apply to professional students.

THE MILITARY SCHOOL.

CAPTAIN C. C. HEWITT, 19th Infantry, United States Army, Commandant of Cadets.

The Military School is directly under charge of an officer of the United States Army specially detailed for this service. This school is inspected annually by an officer under the direction of the Inspector General of the Army. The Inspector's report becomes a part of the records of the War Department. It is thus seen that the government takes an active interest in the military training of the youth of the country.

In the Army Register, published annually, the names of the three students from each College, who stand highest in the Military School at the last Commencement, are published. This is quite an honor, for many thousand copies of this Register are distributed throughout the country. In addition to being an honor to the cadet, it enables the government, in case of need, to select from these names such persons in each State as have had military training.

The government furnishes the University with arms and equipment, and a liberal supply of ammunition for target practice. Two 3.2-inch breech-loading modern field pieces will be furnished by the government for artillery drill this year.

The training in the Military School will instill habits of order, neatness and correctness; give the cadet an erect carriage and teach him to obey and to command.

A student, to be eligible for a cadet appointment, must be between sixteen and twenty-one years of age, and must be able to furnish the Regent with evidence of good moral character.

Each cadet must provide himself with a uniform, costing from $14.00 to $18.00.

Application for a cadet appointment should be made to a Regent of

Commandant and Staff.

the University. The application should set forth the age, name and residence of the applicant, and should enclose a physician's certificate of good health.

The following are the names and addresses of the Regents:
Judge John A. Campbell, New Cumberland.
Hon. Richard Randolph McMahon, Harper's Ferry.
Rev. Dr. W. E. Powell, Parkersburg.
Hon. George C. Sturgiss, Morgantown.
Dr. A. H. Kunst, Weston.
Hon. Thomas C. Atkeson, Buffalo.
Maj. James M. Lee, Lewisburg.
Hon. James F. Brown, Charleston.
Hon. James L. Hamill, Welch.

ADMINISTRATION AND INSTRUCTION.

For the purpose of administration and drill, the corps of cadets is organized as an Infantry Batallion. Cadet officers exercise command. All appointments are made after a competitive examination. A cadet successfully completing the military course will be competent to hold a commission in any military organization. Cadets are divided into sections corresponding to their military proficiency and length of service. New cadets will be required to enter the fourth section, but those who have had previous military instruction may be transferred to a higher section upon passing a satisfactory examination.

The course will consist of practical and theoretical instruction in military science, infantry drill regulations, artillery drill, saber exercise and fencing, physical training in the gymnasium, United States Army regulations, military law, guard duty, marksmanship and military signaling. The theoretical part of the course will occupy one hour per week, and the entire course will not exceed four hours per week.

COURSE OF INSTRUCTION.

The instruction of the various sections will be as follows:

FOURTH SECTION.

Practical Instruction: (a.) Infantry drills in school of the soldier, squad, company and batallion; extended order and ceremonies. (b.) Guard duty as a sentinel. (c.) Physical training in the gymnasium.

Theoretical Instruction: (a.) Infantry Drill Regulations, paragraphs 1 to 248, and 502 to 601, inclusive. (b.) The Manual of Guard Duty except paragraphs 331 to 373, inclusive. (c.) The explanation of Cadet Regulations and General Orders, and the care of arms and accoutrements.

THIRD SECTION.

Practical Instruction: (a.) Infantry drills same as fourth section, except in school of soldiers. (b.) Artillery dismounted battery and saber drills. (c.) Guard duty as sentinels and non-commissioned officers. (d.) Physical training in the gymnasium.

Theoretical Instruction: (a.) Infantry Drill Regulations, paragraphs 249 to 367, 602 to 620, and 663 to 769 inclusive. (b.) Reed's Artillery Tactics, paragraphs 341 to 460 inclusive.

SECOND SECTION.

Practical Instruction: (a.) Infantry drills same as third section. (b.) Military signalling. (c.) Small arms firing, including the preparation of ammunition, position and aiming drills, gallery practice and range firing. (d.) Guard duty same as third section.

Theoretical Instruction: (a.) Infantry Drill Regulations, paragraphs 368 to 499, and 621 to 662 inclusive. (b.) Military signalling. (c.) Small Arms Firing Regulations. (d.) United States Army Regulations.

FIRST SECTION.

Practical Instruction: (a.) Infantry duties of grade attained. (b.) Guard Duty of grade attained. (c.) Courts martial. (d.) Fencing.

Theoretical Instruction: (a.) Minor tactics, including advance and rear guards, outposts, marches, field fortifications, riot duty, etc. (b.) Military Law.

CADET CORPS.

MILITARY GRADUATES AND DISTINGUISHED CADETS, 1896.

1—Cadet First Sergeant J. Keely, Distinguished Cadet.
2—Cadet Sergeant L. L. Friend, Distinguished Cadet.
3—Cadet Second Lieutenant C. E. McCoy, Distinguished Cadet.
4—Cadet First Sergeant W. H. South.
5—Cadet Sergeant E. L. Naret.
6—Cadet Quartermaster Sergeant J. M. Orr.

ROSTER OF OFFICERS OF THE CORPS OF CADETS FOR THE YEAR 1896-7.

COMMANDMENT OF CADETS.

	Date of Commission.
C. C. Hewitt, Captain 19th Infantry	June 4, 1892.

CADET MAJOR.

W. R. Standiford	Sept. 11, 1896.

STAFF.

Major James W. Hartigan, Surgeon	Sept. 23, 1889.
Cadet First Lieutenant C. E. McCoy, Adjutant	Sept. 11, 1896.
Cadet Second Lieutenant E. A. Brooks, Quartermaster	Sept. 11, 1896.
Cadet Second Lieutenant H. A. Eaton, Artillery	Sept. 11, 1896.
Cadet Second Lieutenant D. Utt, Signal Officer	Sept. 11, 1896.

CADET CAPTAINS.

H. M. Leps, Company A.....Sept. 11, 1896.
J. G. Knutti, Company B.....Sept. 11, 1896.

CADET FIRST LIEUTENANTS.

B. G. Moore, Company A.....Sept. 11, 1896.
L. L. Friend, Company B.....Sept. 11, 1896.

CADET SECOND LIEUTENANTS.

W. C. Kilmer, Company A.....Oct. 21, 1896.
J. M. Orr, Company B.....Sept. 11, 1896.

CADET NON-COMMISSIONED STAFF.

W. D. R. Annan, Sergeant Major.....Sept. 11, 1896.
B. F. Scott, Ordnance Sergeant.....Sept. 11, 1896.
H. A. St. Clair, Principal Musician.....Sept. 11, 1896.

CADET FIRST SERGEANT.

C. A. Osborn, Company A.....Sept. 24, 1895.
B. F. Laughlin, Company B.....Sept. 18, 1895.

CADET SERGEANTS.

W. L. Robe, Company C.....Sept. 24, 1895.
G. E. Gramm, Company A.....Sept. 11, 1896.
Paul McCoy, Company B.....Sept. 11, 1896.
E. F. Goodwin, Company B.....Sept. 11, 1896.
G. H. F. Holy, Company B.....Sept. 11, 1896.
J. R. Moreland, Company A.....Sept. 11, 1896.
F. J. St. Clair, Company A.....Sept. 11, 1896.
E. M. Dille, Company A.....Sept. 11, 1896.

CADET CORPORALS.

P. E. Green, Company B.....Sept. 11, 1896.
S. Frankenberger, Company B.....Sept. 11, 1896.
W. L. Lowe, Company A.....Sept. 11, 1896.
C. E. Martin, Company A.....Sept. 11, 1896.
H. H. Ireland, Company B.....Sept. 11, 1896.
C. W. Waddell, Company B.....Sept. 11, 1896.
J. B. Scott, Artillery.....Dec. 7, 1896.
W. C. Dann, Artillery.....Dec. 7, 1896.

ENROLLMENT OF THE MILITARY DEPARTMENT, 1896-7.

Order of Rank.	Year of Enrollment.
W. R. Standiford, Cadet Major	1891
H. M. Leps, Cadet Captain	1891
J. G. Knutti, Cadet Captain	1891
B. G. Moore, Cadet First Lieutenant	1891
C. E. McCoy, Cadet First Lieutenant	1892
L. L. Friend, Cadet First Lieutenant	1892
J. M. Orr, Cadet Second Lieutenant	1892

FIRST SECTION.

E. A. Brooks, Cadet Second Lieutenant	1893
H. A. Eaton, Cadet Second Lieutenant	1893
B. F. Scott, Cadet Ordnance Sergeant	1893
W. C. Kilmer, Cadet Second Lieutenant	1893
L. Utt, Cadet Second Lieutenant	1893
W. D. R. Annan, Cadet Sergeant Major	1893

SECOND SECTION.

B F. Laughlin, Cadet First Sergeant	1894
C. A. Osborn, Cadet First Sergeant	1894
G. H. F. Holy, Cadet Sergeant	1894
W. L. Robe, Cadet Sergeant	1894
P McCoy, Cadet Sergeant	1894
G. E. Gramm, Cadet Sergeant	1894
F. J. St. Clair, Cadet Sergeant	1894
I. Mansbach, Cadet	1894
H. A. St. Clair, Principal Musician	1894
E. M. Dille, Cadet Sergeant	1894
J. R. Moreland, Cadet Sergeant	1894

THIRD SECTION.

P. E. Green, Cadet Corporal	1895
S. Frankenberger, Cadet Corporal	1895
H. K. Drane, Cadet	1895
D. E. Miller, Cadet Musician	1895
H. H. Ireland, Cadet Corporal	1895
C. M. McWhorter, Cadet Musician	1895
E. Jones, Cadet	1895
W. L. Lowe, Cadet Corporal	1895
J. B. Scott, Cadet Corporal	1895
C. E. Martin, Cadet Corporal	1895

W. F. Alexander, Cadet..... 1895
C. W. Waddell, Cadet Corporal..... 1895
A. W. McDonald, Cadet..... 1895
W. C. Dann, Cadet Corporal..... 1896
W. G. Davis, Cadet..... 1896
J. L. Daniels, Cadet..... 1896
H. A. Doan, Cadet Musician..... 1896
George Neely, Cadet..... 1896
H. P. Reitz, Cadet..... 1896
R. K. Robinson, Cadet..... 1896
H. G. Steele, Cadet..... 1896
J. G. Thomas, Cadet..... 1896
H. D. G. Reynolds, Cadet..... 1897

FOURTH SECTION.

R. Reger..... 1896
C. H. Quimby..... 1896
D. Lemen..... 1896
W. H. Bayles..... 1896
I. J. Pratt..... 1896
H. W. Simms..... 1896
B. S. Trussell..... 1896
W. E. Powell..... 1896
L. R. Charter..... 1896
R. K. Bragonier..... 1896
H. H. Veon..... 1896
H Frankenberger..... 1896
A. G. McChesney..... 1896
F. W. Parsons..... 1896
R. V. Hennen..... 1896
P. Summers..... 1896
R. D. Roller..... 1896
H. C. Powell..... 1896
P. U. McDonald..... 1896
G. M. Beltzhoover, Jr..... 1896
T. Roy..... 1896
G. T. Hyde..... 1896
H. S. Lively..... 1896
J C. Jefferds..... 1896
B. K. Roller..... 1896
W. D. Hereford..... 1896
R. J. Largent..... 1896
J. A. Willis..... 1896
C. J. Heflin..... 1896
H. H. Hall..... 1896
F. H. McGregor..... 1896

E. L. Tabler..... 1896
H. Davis..... 1896
B. F. Whitescarver..... 1896
D. C. McMechen..... 1896
C. M. Scott..... 1896
P. O. Sprinkle..... 1896
J. Hanley..... 1896
H. Ward..... 1896
W. H. Gibson..... 1896
C. E. Gerwig..... 1896
J. W. Newman..... 1896
W. Burlingham..... 1896
L. Cochran..... 1896
C. Midelburg..... 1896
J. P. Lazier..... 1896
F. W. Goshorn..... 1896
E. L. Cole..... 1896
W. O. Miller..... 1896
T. S. Lang..... 1897
H. Brenneman..... 1897
P. D. Patti..... 1897
C. F. Hess..... 1897
John Lambert..... 1897
G. N. Holden..... 1897
J. C. Shaw..... 1897
S. Dils..... 1897
F. P. Corbin..... 1897
George S. Fullerton..... 1897
L. D. Mahone..... 1897
W. E. Whiteside..... 1897

CHANGES SINCE LAST CATALOGUE.

GRADUATED FROM THE UNIVERSTIY.

Della B. Kinkaid, Cadet Major.....June 10, 1896
E. M. Pearcy, Cadet Captain.....June 10, 1896
T. C. Johnson, Cadet Captain.....June 10, 1896
J. M. Kunkel, Cadet First Lieutenant.....June 10, 1896
J. Keely, Cadet First Sergeant.....June 10, 1896

DISCHARGED—RESIGNATIONS.

W. F. Naret, Cadet Lieutenant.
W. H. South, Cadet First Sergeant.
E. L. Naret, Cadet Lieutenant.
C. H. Trippett.
H. B. Jamison.
W. T. McDonald.

R. C. Yoho, Cadet Corporal.
G. R. Krebs, Cadet Corporal.
F. H. Babb, Cadet Corporal.
W. M. Chapman, Cadet Corporal.
R. W. Heavener, Cadet Corporal.
H. C. Hess.
B. F. Wood.
J. V. Langfitt.
C. E. Nethkin.
F. E. Clark.
F. Konrad.
C. H. Core.
E. Cooper.
D. M. Cochrane.
J. C. Rane.
R. H. Wilson.
W. S. John.
S. W. Hogsett.
J. W. Grose.
R. A. Farland.
H. M. Gore.
Henry Booth.
George Williams.
L. M. Stone.
C. P. Davidson.
R. L. Gregg.
G. W. Hogg.
C. R. Weirich.
P. E. Elliott.
I. A. Yeager.
J. O. Smith.
A. L. Sawtelle.
D. H. P. Parrish.
E. G. Blume.
W. B. Catlett.
J. C. Freeman.
H. F. Armstrong.
H. S. Armstrong.
C. P. Hitchens.
D. C. Smith.
E. W. Williams.
W. E. West.
A. N. Thomson.
J. K. Thomson.
R. C. Crockett.
J. E. Pennybacker.
W. S. Arnold.
G. E. Anderson.
F. M. Lardin.
C. L. Kirk.
H. R. Crossland.
J. C. Long.
W. F. Holland.
Haymond Maxwell.
W. J. Lee.
E. H. Cameron.
R. M. Douthat.
J. E. Gray.
L. Judy.
W. Hatfield.
P. D. Yeager.
G. D. McNeil.
J. J. Abersold.

Dropped from the Roll for leaving without tendering their resignation:

S. G. Highland. R. O. Couch.

Dropped from the Roll of the Corps, forfeiting all rights and privileges, for absence without leave:

B. S. Thomas. J. F. McDonald.

J. H. Hutchinson.

In accordance with the action of the Faculty. Record and service unsatisfactory:

R. C. Caldwell. F. D. Mitchell.

Dishonorably discharged, by sentence of a Court Martial.

E. O. Logan. R. L. Osborne.

Dishonorably discharged for severing their connections with the Corps without accounting for the public property for which they were responsible:

H. W. Frazer. Joe Keller.

J. C. Thompson.

Dishonorably discharged per action of the Faculty:

H. L. Smith.

SUMMARIES OF ALL CLASSES IN THE UNIVERSITY.

PREPARATORY SCHOOL.

Civil Government..... 22
Elementary Botany..... 19
Physical Geography..... 17
United States History..... 15— 73

ENGLISH.

First English..... 65
Second English..... 57—122

MATHEMATICS.

First Mathematics..... 85
Second Mathematics..... 33—118

LATIN.

First Latin..... 81
Second Latin..... 32—113

ACADEMIC COLLEGE.

ENGLISH.

I. Minor English(1)..... 89
I. Minor English (2)..... 24
II. Major English (1)..... 15
II. Major English (2)..... 21
III. Special Course.
(1.) Anglo Saxon..... 6
(2.) Shakespeare..... 13
(3.) English Philology..... 6
(4.) The English Bible as Literature..... 13
(5.) American Poets..... 10—197

MODERN LANGUAGES.

I. Minor French..... 45
II. Major French..... 3—48
I. Minor German..... 28
II. Major German..... 14—42—90

ANCIENT LANGUAGES.

I. Minor Latin..... 36
II. Major Latin..... 14
III. Special Latin..... 5—55
I. Minor Greek (1)..... 33
I. Minor Greek (2)..... 11
II. Major Greek (1)..... 2
II. Major Greek (2)..... 1—47—102

MATHEMATICS.

I. Minor Mathematics..... 43
II. Major Mathematics..... 12
III. Special Mathematics..... 4—59

CHEMISTRY.

I. Minor Chemistry, General; Class Sec. A..... 45
I. Minor Chemistry, General; Class Sec. B..... 53—98
II. Major Chemistry, Analytic; Class Sec. A..... 9
II. Major Chemistry, Analytic; Class Sec. B..... 8—17
III. Special Chemistry, Analytic..... 1—1—116

PHYSICS.

I. Minor Physics, General; Class Sec. A..... 41
I. Minor Physics, General; Class Sec. B..... 38—79
II. Major Physics, Laboratory (1)..... 17
II. Major Physics, Laboratory (2)..... 12—29
III. Special Physics, Laboratory..... 3— 3—111

BIOLOGY.

I. Minor Course.
(1.) Field Botany..... 19
(2.) Physiology and Hygiene..... 22
(3.) Zoology..... 9—50
II. Major Course.
(2.) Human Anatomy..... 13
(3.) Microscopy..... 11—24—74

GEOLOGY.

I. Minor Course.
(1.) Physical Geography..... 12

(2.) General Geology..... .... 26—38
II. Major Course.
(1.) Mineralogy..... 14
(2.) Economic Geology..... .... 9—23—61

METAPHYSICS AND POLITICAL SCIENCE.

I. Minor Metaphysics..... 21
II. Major Metaphysics..... .... 31—52
I. Minor Political Science..... 27
II. Major Political Science..... .... 26—53
III. Advanced Political Science, Special Course..... 26—26—131

PEDAGOGY.

I. Minor Course..... 8
II. Major Course..... .... 15—23

AGRICULTURAL COLLEGE.

Agriculture..... 2
Horticulture..... 2
Organic Chemistry..... 8
Economic Entomology..... 3
Economic Botany..... 2
Stock Breeding..... .... 2—19

COLLEGE OF ENGINEERING AND THE MECHANIC ARTS.

CIVIL AND MINING ENGINEERING.

Preparatory School..... 25
Freshman..... 28
Sophomore..... 12
Juniors..... 7
Seniors..... .... 3—75

MECHANICAL ENGINEERING AND THE MECHANIC ARTS.

Preparatory School..... 36
Freshman..... 15
Sophomore..... 10
Juniors..... 5
Seniors..... 4
Special Course..... 6
Post-graduate Course..... .... 2—78—153

LAW COLLEGE.

Juniors..... 36
Seniors..... .... 49—85
Special Course Students..... .....15—15 100

COMMERCIAL SCHOOL.

Book-keeping..... 41
Penmanship..... 40
Stenography..... 35
Typewriting..... 42
Commercial Law..... 8
Business Practice..... 22—188

SCHOOL OF PHYSICAL TRAINING.

I. Minor Course..... 62
II. Major Course..... 37
III. Lecture Course..... 24
Class of Ladies..... 23
Cadet Corps in this School..... 82—228

SCHOOL OF MILITARY SCIENCE AND TACTICS.

Enrollment for year..... 123
Cadet Corps, all Sections..... 102
(See Roster of Cadets.)

SUMMATION BY COUNTIES AND STATES.

	Preparatory.	Colleges.	Law.	Totals.
Barbour	..	2	2	4
Berkeley	4	5	..	9
Braxton	1	..	..	1
Brooke	3	4	1	8
Cabell	..	..	1	1
Calhoun	..	..	2	2
Doddridge	1	2	2	5
Fayette	..	..	1	1
Gilmer	1	1	..	2
Grant	1	1	..	2
Greenbrier	1	3	4	8
Hampshire	..	4	..	4
Hancock	1	1	1	3
Hardy	..	..	1	1
Harrison	2	21	2	25
Jackson	..	..	2	2
Jefferson	..	10	1	11
Kanawha	13	8	3	24
Lewis	1	3	1	5
Lincoln	..	..	1	1
Logan	..	1	..	1
McDowell	2	1	..	3
Marion	6	4	7	17

Marshall	1	3	..	4
Mason	..	3	..	3
Mercer	..	2	..	2
Mineral	1	2	3	6
Monongalia	54	71	3	128*
Monroe	..	1	1	2
Morgan	1	..	..	1
Nicholas	..	1	..	1
Ohio	2	15	4	21
Pendleton	3	..	1	4
Pleasants	2	1	1	4
Pocahontas	2	1	..	3
Preston	8	6	3	17
Putnam	1	1	1	3
Randolph	5	2	1	8
Ritchie	3	1	1	5
Summers	..	1	..	1
Taylor	3	10	1	14
Tucker	..	1	1	2
Tyler	2	1	4	7
Upshur	..	2	1	3
Wayne	..	..	1	1
Webster	..	1	..	1
Wetzel	1	10	3	14
Wirt	..	..	1	1
Wood	6	3	2	11
Iowa	..	1	..	1
Kentucky	..	1	..	1
Maryland	..	1	4	5
New Mexico	..	..	1	1
New York	1	1	2	4
Pennsylvania	18	12	13	43
Washington, D. C.	1	..	..	1
	151	227	85	463
Number of students in the Montgomery Preparatory School of the University				59
Total Number of Students				522

*Of the students accredited to Monongalia county, a large number belong to families that have moved to Morgantown temporarily from other counties or other States, for the special purpose of educating their sons and daughters at the University.

DEGREES CONFERRED 1896.

BACHELOR OF ARTS.

ALDERSON, GEORGE, Jr.,
HAUGHT, T. W.
KEELY, JOSIAH
LONGANECKER, J. C.
KINKAID, D. B.
REYNOLDS, MISS MABEL CURRY
PEARCY, E. M.
SANDERS, J. C.

BACHELOR OF SCIENCE.

M'BEE, P. C.
KUNKEL, J. M.

BACHELOR OF ARTS IN LAW.

ARNOLD, JACKSON

BACHELOR OF SCIENCE IN LAW.

BAKER, W. E.

BACHELOR OF SCIENCE IN AGRICULTURE.

JOHNSON, T. C.

BACHELOR OF SCIENCE IN CIVIL ENGINEERING.

RADER, A. F.

MECHANICAL ENGINEERING.

HALL, B. H.

BACHELOR OF LAWS.

ANDERSON, LUTHER C.
BAKER, J. M.
BAMBRICK, GEORGE L.
BARLOW, J. H. S.
BLAIR, S. BRICE
CALDWELL, W. G., A. B.
CAMPBELL, OSCAR A.
CARTER, OLIN
CASTO, DAVID C.
EAGLE, E. C.
FORD, GEORGE M., A. B.
JUDY, E. L.
KINKAID, D. B., A. B.
LEMEN, JOHN O.
MOSS, HUNTER HOLMES, Jr.
NOLL, ALLEN BILLMYER
PIERCE, ARTHUR CARY
RANDOLPH, ERNEST
RUSH, FRANK P.
SMITH, JOHN NEWTON
STALLINGS, A. ROBERT
STEVENS, JUDSON LOWELL.

FORTNEY, LORAINE
GORE, CLAUD W., A. B.
HALL, WILBURN W.
HESS, W. M.
HICKLE, T. J.
HOTT, GEORGE W.
JOLLIFF, CLARENCE F.
STEWART, EDGAR
STILES, THOMAS SHRIVER
STRADER, J. F., A. B.
WADE, J. M. S.
WHITE, BUCKHANNON
WOLFHOPE, FRANK A.
WYSONG, WILLIAM SYDNEY
YEAGER, J. W.

HONORARY DEGREES CONFERRED.

LL. D. on Rev. Geo. W. F. Birch, D. D., New York City.
Ph. D. on Gen. James H. Lane, Polytechnic Institute, Ala.
D. D. on Rev. Ramsey Smithson, Washington, D. C.
A. M. on Bernard C. Alderson, Alderson, W. Va.

SENIOR CLASSES IN COURSE—1896-7.

BACHELOR OF ARTS.

BERNHARDT, MISS T. R. C.
BROOKS, E. A.
EATON, H. A.
FRIEND, L. L.
ICE, W. T., Jr.
KNUTTI, JNO. G.
KUNKEL, MISS JOSEPHINE M.
SOUTH, MISS WINIFRED O.
STANDIFORD, WM. R.
SWISHER, H. L.
VANGILDER, MISS LIDA E.

BACHELOR OF SCIENCE.

MOORE, FREDERICK
REYNOLDS, MISS ETHEL T.

BACHELOR OF ARTS IN LAW.

JOLLIFF, C. F.
PRITCHARD, A. M.
STAGGERS, H. C.
STOUT, W. FRANK.
TAYLOR, LEE ROY.

BACHELOR OF SCIENCE IN CIVIL ENGINEERING.

ORR, J. M.
ROBB, LEWIS J.

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING.

LEPS, H. M.
WHITE, B. S.

BACHELOR OF LAWS.

ADAMS, HOMER
ALLEN, O. O.
ALLEN, P. G.
BENNETT, J. B.
BILLS, R. E.
BLAYNEY, J. I.
BOWERS, J. H.
HINES, C. C.
KEIFER, E. O.
KEYS, T. P.
KUNST, G. H. A., A. B.
KENNEY, A. E.
MAXWELL, C. W.
M'CLURE, H. B.

BURDETTE, C. R.
CAMPBELL, N. W.
CORBETT, L. La F.
CRAMER, C. W.
DAVIS, W. A.
DAWSON, J. W.
DILLE, T. R.
DUNLAP, H. E.
FERGUSON, H. C.
FICKEISEN, A. G.
FREEDEMAN, LEON
HARRISON, T.
HARRISON, C. H.
HARTLE, E. B.
HAYS, ABIJAH, A. B.
HEAVENER, R. W.
HECK, P. S.
M'INTIRE, LLOYD
MORGAN, E. F.
NETHKIN, C. E.
NORTHRUP, S. F.
OGDEN, M. W.
RICE, B. F., Jr.
SHIRLEY, G. P.
SPEELMAN, N.
UNDERWOOD, I. M.
VAN HORN, D.
WALLACE, G. S.
WARE, J. B.
WARMAN, R. D.
WATTS, R. A.
WEHRLE, J.
YOHO, J. W.
YOST, F. H.

REGISTER 1896-7.

THE SEVERAL ROLLS OF STUDENTS.

The meanings of the contractions following the names are as follows: A. B.—Bachelor of Arts Course; A. B. L.—Bachelor of Arts in Law Course; Agr.—Agricultural College Course; B. S.—Bachelor of Science Course; C. E.—Civil Engineering Course; Com.—Commercial Course; M. E.—Mechanical Engineering Course; M. E. P-g.—Mechanical Engineering-Post-Graduate Work; M. E. Se.—Mechanical Engineering Select Course; Med.—Medical Course; Se.—Select Course; 1"—First year of a Course; 2"—Second year of a Course; 3"—Third year of a Course; 4"—Fourth year of a Course.

ROLL OF PREPARATORY STUDENTS.

Name.	Post Office.	County or State.
Alexander, William Frank, 2"	Mannington	Marion.
Alexander, Clyde, 2"	Morgantown	Monongalia.
Ashcraft, William Harrison, 1"	Triune	Monongalia.
Brallier, John Kinport, 1"	Indiana,	Pennsylvania.
Bayles, Willie H., 2"	Gladesville,	Preston.
Beall, C. C., 1"	Morgantown,	Monongalia.
Bircher, J. O., 1"	Randall	Monongalia.
Bircher, George Calvin, 2"	Randall	Monongalia.
Blackshere, Harry, 1"	Mannington	Marion.
Boggs, Pendleton, 1"	Franklin	Pendleton.
Boyers, Guy M., 1"	Randall	Monongalia.
Boyers, Charles Forest, 1"	Randall	Monongalia.
Briggs, James W., 1"	Wellsburg	Brooke.
Bumgarner, Frank Osgood, 1"	Millsboro	Pennsylvania.
Burley, Edward E., 1"	Moundsville	Marshall.
Burlingham, William, 2"	Charleston	Kanawha.
Cameron, Earl H., 1"	Morgantown	Monongalia.
Charter, Lathrop Russell, Jr., 2"	West Union	Doddridge.

Name.	Post Office.	County or State.
Christopher, Frank, 1"	McClellandstown	Pennsylvania.
Cochran, W. Lynn, 1"	St. Albans	Kanawha.
Cole, Emmert Luther, 1"	Morgantown	Monongalia.
Collier, Edwin, 1"	Wheeling	Ohio.
Cooper, Earl, 2"	Washington	Wood.
Corbin, Frank P., 1"	Ellenboro	Ritchie.
Couch, Royden O., 1"	Charleston	Kanawha.
Crow, Arthur Everette, 1"	McClellandstown	Pennsylvania.
Cox, Boaz B., 1"	Morgantown	Monongalia.
Daniels, John Luther, 1"	Gerrardstown	Berkeley.
Dann, William C., 2"	Elkins	Randolph.
Davis, Ralph, 1"	Morgantown	Monongalia.
Davis, Frank A., 1"	Morgantown	Monongalia.
Dille, Elisha Merrill, 1"	Morgantown	Monongalia.
Dils, Sherman, 1"	Parkersburg	Wood.
Dean, Harry Allen, 2"	St. Mary's	Pleasants.
Donley, Edward G., 1"	Mt. Morris	Pennsylvania.
Dorman, John Bernard, 1"	Wellsburg	Brooke.
Eakin, Roscoe, 1"	Morgantown	Monongalia.
Evans, James, 2"	Morgantown	Monongalia.
Farland, Richard Ashville, 1"	Clarksburg	Harrison.
Fetty, Herbert Cordray, 1"	Morgantown	Monongalia.
Finnell, Virgil Carl, 1"	Morgantown	Monongalia.
Finnell, Harry W., 2"	Morgantown	Monongalia.
Flournoy, Harry Lightfoote, 2"	Charleston	Kanawha.
Fullerton, Geo. S., 1"	Fairview	Hancock.
Frankenberger, Hugo, 2"	Charleston	Kanawha.
Frazee, Augustine, 1"	Hazleton	Preston.
Frazee, Mansfield E., 1"	Bruceton Mills	Preston.
Furman, Frederick, 1"	Randall	Monongalia.
Garrison, Harry A., 2"	Morgantown	Monongalia.
Garrison, James A., 2"	Jolly Town	Pennsylvania.
George, James M., 1"	Shirley	Tyler.
Gibson, William Herbert, 2"	Tunnelton	Preston.
Gibson, Morrow Ross, 2"	Valley Grove	Ohio.
Goshorn, Frederick Walter, 1"	Charleston	Kanawha.
Hall, Harry Hopkins, 2"	Parkersburg	Wood.
Hanley, James, Jr., 1"	Elkins	Randolph.
Harner, J. C., 1"	Morgantown	Monongalia.
Harvey, John Speed, 2"	Morgantown	Monongalia.
Hayes, Russell A., 1"	Morgantown	Monongalia.
Heflin, Carroll Judson, 2"	Grafton	Taylor.
Henderson, Marris G., 1"	Morgantown	Monongalia.
Hendrickson, L. S., 2"	Bayard	Grant.
Hennen, Ray V., 2"	St. Cloud	Monongalia.
Hereford, Will Delafield, 1"	St. Albans	Kanawha.
Hess, Homer H., 1"	New Salem	Pennsylvania.
Holland, Claude Lee, 1"	Triune	Monongalia.
Hoover, Chas. V., 1"	McClellandtown	Pennsylvania.
Hott, David, Jr., 2"	Martinsburg	Berkeley.
Hutchinson, Jos. Henry, 1"	Parkersburg	Wood.
Hutton, Ernest, 1"	Huttonsville	Randolph.
Hutton, Harvey Woodford, 1"	Huttonsville	Randolph.
Hyde, George Thurston, 2"	Piedmont	Mineral.

Name.	Post Office.	County or State.
Ireland, Harlam Humbert, 2"	Morgantown	Monongalia.
Izon, Alfred, 1"	P't'b'g, 2115 Carry A'y	Pennsylvania.
Jacobs, John Evans, 1"	Morgantown	Monongalia.
Jamison, John H., 1"	Morgantown	Monongalia.
John, Wm. S., 2"	Rosedale	Pennsylvania.
Jones, Elbert, 1"	Rivesville	Marion.
Jones, John Arlington, 1"	Morgantown	Monongalia.
Judy, Lafayette, 1"	Upper Tract	Pendleton.
Keener, Hayes Harold, 2"	Dunkard	Pennsylvania.
Krepps, Jacobs Snyder, 1"	Morgantown	Monongalia.
Kunkle, J. H., 1"	Morgantown	Monongalia.
Lang, Thomas Simeon, 2"	Bridgeport	Harrison.
Lardin, Frank Miller, 2"	Masontown	Pennsylvania.
Larew, Hiram G., Jr., 2"	Independence	Preston.
Largent, Robert Joseph, 1"	Paw Paw	Morgan.
Lazier, James P., 2"	Morgantown	Monongalia.
Lazier, H. B., Jr., 1"	Morgantown	Monongalia.
Leighton, Joseph, 1"	Washington	D. C.
Lively, Henry S., 1"	Weston	Lewis.
Lucas, Arthur Mapel, 2"	Morgantown	Monongalia.
Matthews, Harry J., 1"	Mannington	Marion.
Maust, Frank L., 1"	Morgantown	Monongalia.
McChesney, Alexander Gallatin, 2".	Charleston	Kanawha.
McMechen, David Carroll, 2"	Washington	Wood.
McWhorter, Charley N., 2"	Lewisburg	Greenbrier.
Midelburg, Charles, 1"	Charleston	Kanawha.
Miller, Jacob F., 2"	Oldframe	Pennsylvania.
Miller, Dwight E., 2"	Fairmont	Marion.
Miller, Archie H., 2"	Fairmont	Marion.
Miller, W. O., 1"	Kingwood	Preston.
Moreland, James R., 2"	Morgantown	Monongalia.
Moreland, Henry Lazier, 2"	Morgantown	Monongalia.
Newman James Ward, 1"	Andy	Wetzel.
Parsons, Floyd W., 2"	Grafton	Taylor.
Pattie, Paul Desha, 1"	Wellsburg	Brooke.
Pennybacker, James Edmund, 2"	Franklin	Pendleton.
Porter, Robert Baird, 1"	New Salem	Pennsylvania.
Powell, Walter E., Jr., 1"	Parkersburg	Wood.
Powell, Harvey Clarence, 1"	Lima	Tyler.
Pratt, James Ira, 1"	Beech Grove	Ritchie.
Price, William Chalfant, 1"	Scrafford	Monongalia.
Read, Robert Gwynne, 2"	Elkins	Randolph.
Reitz Henry P., 1"	Petroleum	Ritchie.
Reynolds, Boyce W., 1"	Morgantown	Monongalia.
Robinson, Robert Kitchen, 1"	Shanghai	Berkeley.
Rogers, Ralph, 2"	Morgantown	Monongalia.
Rogers, Edward Karl, 1"	Morgantown	Monongalia.
Ross John G., 2"	Morgantown	Monongalia.
Roy, Taylor R., 1"	Charleston	Kanawha.
Sanders, Harry, 1"	Maidsville	Monongalia.
Sangston, James Holmes, 1"	McClellandtown	Pennsylvania.
Shaw, John Claude, 1"	Guseman	Preston.
Sheerin, George, 2"	Morgantown	Monongalia.
Shisler, John H., 2"	Morgantown	Monongalia.
Shriver, Ross C., 1"	Wadestown	Monongalia.

Name.	Post Office.	County or State.
Shloss, Sidney, 1''	N. Y. C., 962 Park Ave...	New York.
Simms, Hugh Morton, 2''	Charleston	Kanawha.
Smith, James O., 2''	Marlinton	Pocahontas.
Smith, Walter Oriville, 1''	Vanvorhis	Monongalia.
Smith, James Henry, 1''	Morgantown	Monongalia.
Speer, L. Springer, 1''	Greensburg	Pennsylvania.
St. Clair, Franklin J., 2''	Morgantown	Monongalia.
Steele, Harry George, 2''	Keystone	McDowell.
Stewart, C. W. H., 1''	Morgantown	Monongalia.
Swaney, Daniel Ferd, 1''	Bruceton	Preston.
Swartzwelder, Albert Lawrence, 1''	Allegheny	Pennsylvania.
Tabler, Burkhart Lee, 1''	Tabler's	Berkeley.
Thomas, James G., 1''	Algoma	McDowell.
Turner, Charles W., 1''	Morgantown	Monongalia.
Vannoy, John D., 2''	Tanners	Gilmer.
Veon, Howard H., 2''	Cluster	Pleasants.
Ward, Harold, 1''	Charleston	Kanawha.
Wartenberg, Charles Edward, 2''	Allegheny	Pennsylvania.
West, Cecil Nalle, 1''	Charleston	Kanawha.
Wharton, J. Ross, 1''	Morgantown	Monongalia.
Whitescarver, Bangnis F., 1''	Pruntytown	Taylor.
Whiteside, William Everett, 1''	Midway	Putnam.
Wood, George Washington, 2''	Morgantown	Monongalia.
Yeager, Paris Dameron, 1''	Marlinton	Pocahontas.

ROLL OF COLEGE STUDENTS.

Abersold, Jacob J., C. E. 1''	New Martinsville	Wetzel.
Anderson, Geo. Edward, Se. 2''	Latrobe	Pennsylvania.
Annan, Wm. D. Roberdeau, Se. 4''	Newburg	Preston.
Arnett, Lonna D., B. S. 3''	Opekiska	Monongalia.
Atkinson, Geo. Wesley, Jr., Se. 2''	Charleston	Kanawha.
Barbe, Clyde D., A. B. 2''	Morgantown	Monongalia.
Barnes, Isaac Allen, Se. 1''	Morgantown	Monongalia.
Barrickman, Van Ara, A. B. 1''	Cassville	Monongalia.
Beall, J. Tipping, A. B., 2''	Capon Bridge	Hampshire.
Beall, Clarence Hough, A. B. 1''	Morgantown	Monongalia.
Beltzhoover, Geo. M., Jr., A.B. 1''	Shepherdstown	Jefferson.
Berkshere, Clarence E., A. B. 2''	Maidsville	Monongalia.
Bernhardt, Tillie R. C., A. B. 4''	Uniontown	Pennsylvania.
Bragonier, Richard K., A. B. 1''	Shepherdstown	Jefferson.
Brand, Willa Norvilla, A. B. 3''	Morgantown	Monongalia.
Brooks, Earle Amos, A. B. 4''	French Creek	Upshur.
Brown, John M. Guy, A. B. L. 1''	Morgantown	Monongalia.
Brown, Anna Floride, Com. 1''	Charles Town	Jefferson.
Brown, Alexandria Gay, Se. 1''	Morgantown	Monongalia.
Brown, Maud, Com. 1''	Kingwood	Preston.
Bruner, William J., C. E. 4''	Wheeling	Ohio.
Cameron, Leila Hope, Se. 1''	Morgantown	Monongalia.
Carle, Ethel, A. B. 1''	Eatons	Wood.
Carney, Ellis Bartlett, Se. 1''	Silver Hill	Wetzel.
Carskadon, Ed. B., A. B. L. 2''	Headsville	Mineral.
Chadwick, Sam'l G., Jr., Com. 1''	Morgantown	Monongalia.
Clark, Friend E., B. S.3''	New Martinsville	Wetzel.

Name.	Post Office.	County or State.
Clemans, Willie G., A. B. L. 2"	Benson	Harrison.
Cole, Harry O., C. E. 3"	Morgantown	Monongalia.
Connell, John Harden, B. S. 1"	Wellsburg	Brooke.
Cox, Lawrence M., A. B. 1"	Morgantown	Monongalia.
Craig, Chas. John. Leo., Com. 1"	Bridgeport	Harrison.
Crossland, Howard R., M. E. 1"	New Haven	Pennsylvania.
Crossman, Victor W., A. B. 1"	Babylon	New York.
Curry, Gertrude Stuart, Com. 1"	Addison	Webster.
Davidson, C. Peyton, M. E. 1"	Flemington	Taylor.
Davis, Fred Arthur, C. E. 3"	Morgantown	Monongalia.
Davis, W. G., A. B. 1"	New Milton	Doddridge.
Dawson, W. E., Com. 1"	Clarksburg	Harrison.
Deffenbauch, Walter S., A. B. 3"	Smithfield	Pennsylvania.
Dent, Sam'l Marmaduke, A. B. 1"	Duke	Monongalia.
Dering, Grace Euzy, Se. 2"	Morgantown	Monongalia.
Dille, Jane Hagans, Se. 1"	Morgantown	Monongalia.
Dittmeyer, Walter E., Com. 1"	Harper's Ferry	Jefferson.
Douthat, Luther L., M. E. Se. 1"	Morgantown	Monongalia.
Drane, Harry Keller, A. B. L. 2"	Piedmont	Mineral.
Eakin, J. Ross, C. E. 1"	New Martinsville	Wetzel.
Eaton, Harry Anthony, A. B. 4"	Winchester	Kentucky.
Ebers, Charles H., A. B. 1"	Benwood	Marshall.
Eddy, Alex. L., A. B. 1"	Cross Roads	Monongalia.
Elliott, Charley S., C. E. 2"	Redstone	Pennsylvania.
Ely, John R. E., Se. 2"	Wheeling	Ohio.
Evans, Edward H., Se. 1"	Elkhorn	McDowell.
Faulkner, Frank B., M. E. 1"	Albright	Preston.
Frankenberger, Sam., A. B. 1"	Charleston	Kanawha.
Friend, Lloyd Lowndes, A. B. 4"	Farmington	Marion.
Frum, Floyd N., C. E. 2"	Bridgeport	Harrison.
Fry, Homer A., M. E. 1"	Ronceverte	Greenbrier.
Garlow, Charles Lee, Com. 2"	Maidsville	Monongalia.
Gerwig, Ed. C., Jr., M. E. Se. 1"	Parkersburg	Wood.
Giffin, James Vincent, C. E. 2"	Roney's Point	Ohio.
Goodwin, Elmer F., A. B. L. 3"	Bridgeport	Harrison.
Gore, H. M., A. B. L. 1"	Clarksburg	Harrison.
Goshorn, Henry W., Med. 1"	Charleston	Kanawha.
Gramm, Geo. Edgar, M. E. 2"	Grafton	Taylor.
Grant, Dale, Med. 1"	Morgantown	Monongalia.
Green, Paul E., C. E. 2"	Wheeling	Ohio.
Griffitts, Icy Dora, A. B. 1"	Henderson	Mason.
Hackney, Blanche, B. S. 1"	Morgantown	Monongalia.
Harvey, Elizabeth Lynn, Com. 1"	Morgantown	Monongalia.
Hayes, Flora Ray, A. B. 1"	Morgantown	Monongalia.
Heironimus, R. Deen, A. B. L. 2"	Davis	Tucker.
Heihle, Ernest, Agr. 1"	Parkersburg	Wood.
Hess, Carrie Virginia, Com. 1"	Duke	Monongalia.
Hess, Harry C., A. B. 1"	Laurel Point	Monongalia.
Hess, Carl Frederick, Com. 1"	Point Pleasant	Mason.
Highland, Scotland G., A. B. 1"	Clarksburg	Harrison.
Hoard, Mamie B., Com. 1"	Hoard	Monongalia.
Holden, Geo. Nestor, A. B. 1"	Craigmoor	Harrison.
Holden, Chas. Fenton, A. B. L. 1"	Clarksburg	Harrison.
Holland, W. F., C. E. 1"	Morgantown	Monongalia.

Name.	Post Office.	County or State.
Holy, Geo. Henry F., M. E. 2''	Grafton	Taylor.
Horn, James W., A. B. 2''	Capon Bridge	Hampshire.
Howe, James Vance, A. B. 1''	Morgantown	Monongalia.
Hugus, John Wright, A. B. 2''	Wheeling	Ohio.
Ice, R. Delmont, A. B. L. 1''	Mannington	Marion.
Ice, Wm. Thomas, Jr., A. B. 4''	Philippi	Barbour.
Ireland, Catherine E., Com. 1''	Morgantown	Monongalia.
Jamison, Gillian, A. B. 1''	Morgantown	Monongalia.
Jarvis, Cecil C., A. B. 1''	Clarksburg	Harrison.
Jefferds, Joseph Crosby, A. B. 1''	Charleston	Kanawha.
Johnson, Laura Dale, Com. 1''	Long Reach	Tyler.
Johnston, Thos. Brodie, C. E. 1''	Oil City	Pennsylvania.
Jolliffe, Clarence F., A. B. L. ."	Uniontown	Wetzel.
Jolliffe, Jo. A., Com. 1''	Ridgedale	Monongalia.
Jones, Hannah Louise, A. B. 1''	Morgantown	Monongalia.
Jones, C. R., M. E. P-g	Knottsville	Taylor.
Judy, E. L., A. B. L., 1''	Pansy	Grant.
Keener, Natt Camby, Med. 1''	Morgantown	Monongalia.
Kilmer, W. Culler, A. B. L. 3''	Martinsburg	Berkeley.
Knox, Roy, Se. 3''	Uniontown	Pennsylvania.
Knutti, J. G., A. B. 4''	Alpena	Randolph.
Koontz, Charles H., Com. 1''	New Martinsville	Wetzel.
Konrad, Philip, C. E. 2''	New Martinsville	Wetzel.
Krebs, George R., M. E. 2''	New Martinsville	Wetzel.
Kunkel, Josephine M., A. B. 4''	Morgantown	Monongalia.
Langfitt, J. V., B. S. 2''	Eagles Mills	Doddridge.
Lambert, John, Com. 1''	Princeton	Mercer.
Laughead, Berton M., C. E. 3''	Morgantown	Monongalia.
Laughlin, Benj. F., A. B. 2''	Grafton	Taylor.
Law, A. S., C. E. 2''	Clarksburg	Harrison.
Law, James Edman, A. B. L. 2''	Salem	Harrison.
Lemen, David, A. B. 1''	Shepherdstown	Jefferson.
Leps, Henry M., M. E. 4''	Morgantown	Monongalia.
Lewellen, Lee, C. E. 2''	Duke	Monongalia.
Long, James Curry, B. S. 1''	New Haven	Pennsylvania.
Lowe, Walter Loring, B. S. 1''	Shinnston	Harrison.
Lowe, Scott C., A. B. L. 1''	Eldora	Marion.
Lowther, C. Forest, Med. 2''	New Martinsville	Wetzel.
Madera, Lilly May, Com. 1''	Grafton	Taylor.
Madigan, Nora Beall, A. B. 3''	Morgantown	Monongalia.
Madigan, Mary C., A. B. 3''	Morgantown	Monongalia.
Mahaney, Lloyd, Jr., M. E. Se. 1''	Uniontown	Pennsylvania.
Mahone, Luther D., A. B. 1''	Summerville	Nicholas.
Mansbach, Isaac, A. B. 1''	Cumberland	Maryland.
Marks, Edward G., Com. 1''	Wellsburg	Brooke.
Martin, Clarence E., A. B. L. 1''	Martinsburg	Berkeley.
Maxwell, Haymond, A. B. L. 1''	Clarksburg	Harrison.
McCoy, Paul, A. B. L. 3''	Fairmont	Marion.
McCoy, Charles E., C. E. 3''	Buffalo	Putnam.
McDonald, John F., Med. 1''	Man	Logan.
McDonald, Angus W., M. E. 1''	Charles Town	Jefferson.
McDonald, Pierce N., A. B. 1''	Charles Town	Jefferson.
McGregor, Frank H., A. B. L. 1''	Cairo	Ritchie.
McMechen, Frank List. C. E. 1''	McMechen	Marshall.
McVicker, Alberta Clair, Se. 2''	Morgantown	Monongalia.

Name.	Post Office.	County or State
Meade, Robert Nelson, Se. 1"	Hinton	Summers.
Miller, Hattie S., Com. 1"	Morgantown	Monongalia.
Miller, Anna Lina, Com. 1"	Morgantown	Monongalia.
Mills, Joseph H., Com. 1"	Morgantown	Monongalia.
Moore, Frederick, B. S. 4"	Belington	Barbour.
Moreland, Eleanor B., A. B. 3"	Morgantown	Monongalia.
Morford, O. P., C. E. 1"	Pedlar	Monongalia.
Neely, George W., A. B. 1"	Lightburn	Lewis.
Nelson, J. Frank, B. S. 3"	Capon Bridge	Hampshire.
Oliphant, Ethelbert C., C. E. 1"	South Oil City	Pennsylvania.
Orr, J. Morgan, C. E. 4"	Kingwood	Preston.
Osborn, Cuthbert Alex., M. E. 1"	Clarksburg	Harrison.
Parks, John N., B. S. Se. 1"	Martinsburg	Berkeley.
Pettit, C. S., A. B. L. 1"	Sutton	Braxton.
Post, Sidney H., Med. 1"	Romines Mills	Harrison.
Post, Arthur Lee, A. B. 3"	Good Hope	Harrison.
Postlethwait, Wm. J., A. B. L. 1"	Dean	Wetzel.
Pratt, Rachel Evelyn, A. B. 2"	Wheeling	Ohio.
Pritchard, A. M., A. B. L. 4"	Charleston	Kanawha.
Quinby, Chas. H., Jr., C. E. 2"	Wheeling	Ohio.
Ranson, Lyle M., M. E. 1"	Harper's Ferry	Jefferson.
Read, Semmes, A. B. 1"	Elkins	Randolph.
Reger, Roy, A. B. 3"	Rural Dale	Upshur.
Reynolds, Harry D. G., A. B. 1"	Wheeling	Ohio.
Reynolds, Ethel Toy, B. S. 4"	Morgantown	Monongalia.
Rightmire, Ina, A. B. 1"	Grafton	Taylor.
Robb, Lewis J., C. E. 4"	New Cumberland	Hancock.
Robe, Wilbur Lawrence, A. B. 1"	Morgantown	Monongalia.
Roller, Benj. R., A. B. 1"	Charleston	Kanawha.
Roller, Robt. D., Jr., A. B. 1"	Charleston	Kanawha.
Romine, Alex. Pickens, A. B. 2"	Johnstown	Harrison.
Sage, A. B., M. E. 1"	Wellsburg	Brooke.
Sample, C. W., A. B. 2"	Randall	Monongalia.
Sanders, Chas. C., Med. 1"	Maidsville	Monongalia.
Sanders, Mary Virginia, B. S. 2"	Maidsville	Monongalia.
Sawtelle, Archie L., A. B. L. 2"	Wheeling	Ohio.
Shauwecker, Gottlob, Agr. 1"	St. Mary's	Pleasants.
Scott, Buckner F., A. B. 1"	Terra Alta	Preston.
Scott, Charles M., Med. 1"	Princeton	Mercer.
Scott, Joseph B., M. E. Se. 1"	Lewisburg	Greenbrier.
Semans, Blanche, Com. 1"	Morgantown	Monongalia.
Shape, Frank Allfree, Se. 1"	New Salem	Pennsylvania.
Shuttleworth, B. F., Jr., A. B. 1"	Clarksburg	Harrison.
Smith, DaCosta, A. B. L. 1"	Weston	Lewis.
Smith, Dallas Victor, Med. 1"	Upland	Mason.
Smith, Vivian K., Med. 1"	Wheeling	Ohio.
Snyder, Louis C., A. B. 1"	Laurel Point	Monongalia.
Snyder, J. Verne, C. E. Se. 3"	Lewisburg	Greenbrier.
South, Walter H., A. B. L. 2"	Morgantown	Monongalia.
South, Winifred O., A. B. 4"	Morgantown	Monongalia.
Spencer, Clarie Margaret, Se. 1"	Brooklyn	Iowa.
Sprinkle, Pergolia Orien, Com. 1"	Martinsburg	Berkeley.
Staggers, Haman C., A. B. L. 4"	Martinsburg	Berkeley.
Standiford, Wm. Russell, A. B. 4"	Elm Grove	Ohio.
Stathers, Silas C., M. E. P-g	Wheeling	Ohio.

Name.	Post Office.	County or State.
St. Clair, Harry A., A. B. 1"	Stewartstown	Monongalia.
Stidger, Geo. H., Jr., C. E. 1"	Cameron	Marshall.
Stout, W. Frank, A. B. L. 4"	Bridgeport	Harrison.
Summers, Porter, A. B. L. 1"	Glenville	Gilmer.
Swisher, H. L., A. B. 4"	South Branch Depot	Hampshire.
Taylor, Lee Roy, A. B. L. 4"	Wadestown	Monongalia.
Thomas, Benj. S., M. E. 1"	St. Albans	Kanawha.
Titus, Meyers N., Com. 1"	Greensboro	Pennsylvania.
Trippett, J. Fenton, Med. 1"	Morgantown	Monongalia.
Trippett, Clyde H., Med. 1"	Wheeling	Ohio.
Trussell, Bernard H., A. B. L. 1"	Shepherdstown	Jefferson.
Utt, Des Moines, M. E. 1"	Morgantown	Monongalia.
Utt, Oranna Ellen, Com. 1"	Morgantown	Monongalia.
VanCamp, Gilla, Com. 2"	Morgantown	Monongalia.
VanGilder, Lida Edna, A. B. 4"	Morgantown	Monongalia.
Waddell, Chas. Walter, A. B. 1"	Brandonville	Preston.
Waters, Leslie Vincent, Med. 1"	Morgantown	Monongalia.
Watson, Willie May, Com. 1"	Morgantown	Monongalia.
Weaver, Frank, Com. 1"	Morgantown	Monongalia.
Weirich, Colin R., Med. 1"	Wellsburg	Brooke.
Wells, Elta Blanche, Com. 2"	Morgantown	Monongalia.
White, Bennett S., M. E. 4"	Morgantown	Monongalia.
White, Henry M., A. B. L. 2"	Camden	Lewis.
Whitescarver, E. L., Com. 2"	Pruntytown	Taylor.
Whitescarver, E. M., A. B. 2"	Pruntytown	Taylor.
Whitham, Wm. Henry, B. S. 1"	Morgantown	Monongalia.
Whitham, Geo. Robins, M. E. 1"	Morgantown	Monongalia.
Willey, C. DeWitt, A. B. L. 1"	Morgantown	Monongalia.
Willey, Guy A., M. E. Se. 1"	Morgantown	Monongalia.
Williams, Earl W., Com. 1"	Grafton	Taylor.
Willis, Carson Allen, Com. 1"	Bridgeport	Harrison.
Willis, John Augustine, M. E. 1"	Summit Point	Jefferson.
Wood, Fred. Benj., A. B. L. 1"	Wheeling	Ohio.
Wood, Ed. K., Com. 1"	Wheeling	Ohio.
Wood, Lucy Berkshere, A. B. 2"	Morgantown	Monongalia.
Yeager, Louis A., A. B. L. 1"	Marlinton	Pocahontas.

ROLL OF LAW STUDENTS.

Adams, Homer, 1"	Summers	Doddridge.
Allen, William Silas, 1"	Shiloh	Tyler.
Allen, Orilious O., 1"	Lima	Tyler.
Allen, Paul Gamble, 1"	Moorefield	Hardy.
Bennett, John Brannon, 2"	Weston	Lewis.
Bills, Robert E., 2"	Calcutta	Pleasants.
Blayney, John Irvin, 2"	Good Intent	Pennsylvania.
Bond, Ed. Sortorus, 1"	Horton	Randolph.
Bowers, J. Hugh, 1"	Brushy Run	Pendleton.
Brown, John Elias, 1"	Butler	Pennsylvania.
Brown, Austin Hooker, 1"	Linton	Ohio.
Branneman, Herbert, 1"	Grant	Hancock.
Burdette, Clarence Rand, 2"	Charleston	Kanawha.
Burns, C. E., 2"	Hamlin	Lincoln.

Name.	Post Office.	County or State.
Campbell, N. W., 1"	Euclid	Pennsylvania.
Camps, Vernon Corlin, 1"	Montgomery	Fayette.
Corbett, Louis La Fever, 1"	Watkins	New York.
Corder, J. F., 1"	Pepper	Barbour.
Cramer, Chas. William, 2"	Piedmont	Mineral.
Davis, W. Austin, 1"	Morgantown	Monongalia.
Davis, Henry, Jr., 1"	Cannelton	Kanawha.
Dawson, John William, 1"	Ormond	Pennsylvania.
Deem, H. Nelson, 2"	Saulsbury	Wood.
Dille, Thomas Ray, 2"	Morgantown	Monongalia.
Doris, Hugh Francis, 1"	Pittsburg	Pennsylvania.
Dunlap, Herbert E., 1"	West Alexander	Pennsylvania.
Elder, W. Clarence, 1"	Boothsville	Marion.
Ferguson, Henry Creed, 1"	Cottageville	Jackson.
Fickeisen, A. G., 2"	Wellsburg	Brooke.
Flennekin, John Burson, 1"	Fredericktown	Pennsylvania.
Freedman, Leon, 2"	Braddock	Pennsylvania.
Fry, Joseph H., 1"	Lewisburg	Greenbrier.
Harrison, Taney, 2"	Falling Springs	Greenbrier.
Harrison, Charles Hugo, 1"	Falling Springs	Greenbrier.
Hartle, Elias Brumbaugh, 1"	Hagerstown	Maryland.
Hays, Abijah, A. B., 1"	Wheeling	Ohio.
Heavener, Ralph W., 2"	Buckhannon	Upshur.
Heck, Philip S., 2"	Rivesville	Marion.
Hines, Cary Clowny, 1"	Red Sulphur Springs	Monroe.
Hopkins, Bee, 1"	Arnoldsburg	Calhoun.
Hundley, Edward Everett, 1"	Masontown	Preston.
Hundley, John Palmer, 1"	Masontown	Preston.
Kauffeld, Elias, 1"	Pittsburg	Pennsylvania.
Keifer, Edwin O., 2"	Paden's Valley	Wetzel.
Kelly, H. G., 1"	Confidence	Putnam.
Kelso, Arthur I., 1"	Mt. Lake Park	Maryland.
Kenny, Amos Ernest, 2"	Arnoldsburg	Calhoun.
Keys, Thomas Pierce, 2"	Keyser	Mineral.
Kunst, Geo. Henry A., A. B., 1"	Pruntytown	Taylor.
Leech, John L., 1"	Palatine	Marion.
List, Monroe Creel, 1"	Wheeling	Ohio.
Martin, Earle Bruce, 1"	Middlebourne	Tyler.
Maxwell, Claude Wilson, 1"	Parsons	Tucker.
McClure, Harry B., 2"	Braddock	Pennsylvania.
McGregor, Robert Ray, 1"	Cairo	Ritchie.
McIntyre, Lloyd, 1"	New Martinsville	Wetzel.
Morgan, Ephriam F., 1"	Forksburg	Marion.
Nethkin, C. Ervin, 2"	Elk Garden	Mineral.
Newman, Robert Beauchamp, 1"	Creston	Wirt.
Northup, Seaman F., 1"	Beaver Dams	New York.
O'Brien, John J. P., 1"	Wheeling	Ohio.
Ogden, Marshall W., 2"	Prospect Valley	Harrison.
Osborne, Robert Linn, 1"	Clarksburg	Harrison.
Ralston, Charles Francis, 1"	Altoona	Pennsylvania.
Rice, Benjamin F., Jr., 2"	Deming	New Mexico.
Scott, Charles F., 1"	Bruceton	Preston.
Shirley, Geo. P., 1"	Middleway	Jefferson.
Speelman, Norval, 1"	Selbysport	Maryland.
Spurlock, H. P., 1"	Ceredo	Wayne.

Name.	Post Office.	County or State.
Stanley, Amos O., 2''	Bunners	Marion.
Thomson, Alfred Nevette, 1''	Parkersburg	Wood.
Trenchard, Thos. Gawthrop, 1''	Church Hill	Maryland.
Underwood, Isaac M., 1''	Shirley	Tyler.
Van Horn, Deco, 1''	Grove	Doddridge.
Wallace, George S., 1''	Huntington	Cabell.
Ware, J. Blackburn, 1''	Belington	Barbour.
Warman, Robert D., 1''	Fairchance	Pennsylvania.
Watts, Ross Alfred, 1''	Richlands	Greenbrier.
Wehrle, John, 1''	Charleston	Kanawha.
Wiles, Lillian R., 1''	Morgantown	Monongalia.
Wilgus, F. Benton, 1''	Monongahela City	Pennsylvania.
Yoho, Jefferson Wylie, 1''	Proctor	Wetzel.
Yost, Ellis A., 1''	Amos	Marion.
Yost, Fielding Harris, 2''	Amos	Marion.

Addenda.

HARDING, C. W., L.B., 1st, Beverly, Randolph County, W. Va.

LEWIS, J. C., Preparatory, 1st, Grafton, Taylor County, W. Va.

Entire Enrollment for the Year, 465.

MONTGOMERY PREPARATORY SCHOOL.

The Preparatory School of the West Virginia University at Montgomery in Fayette county was established under the provisions of an act of the Legislature passed February 16, 1895. A suitable building was erected on a beautiful site overlooking the town of Montgomery, the Kanawha River and the Chesapeake and Ohio Railroad, and the school was opened the first Monday in January of the present year, 1897, with two teachers, Edward C. Bennett and Miss Ruby Knight.

The control of the school is vested in the Board of Regents of the West Virginia University and the State Superintendent of Free Schools.

The President of the University is ex-officio President of this school without additional compensation.

The course of study will be the same as that in the Preparatory School at the University. (See pages 31-32.)

Tuition is free to all young men and young women of West Virginia.

The citizens of Montgomery donated the spacious and beautiful grounds for the school and they are enthusiastic workers for its welfare. The last Legislature made liberal appropriations for this school, and by the time for opening next fall it will be prepared to accommodate and thoroughly teach a large number of students.

It is expected that all who enter the University Preparatory School at Montgomery will make every possible effort to go on from there to the West Virginia University.

The school is easy of access from the counties of Fayette, Raleigh, Summers, Greenbrier, Nicholas, Clay, Kanawha, Boone, Mercer, Monroe, Wyoming and all that section of the State. The instruction will be most thorough, and tuition free. Additional teachers will be provided.

Following is a list of pupils of the Montgomery Preparatory School of the West Virginia University:

BOYS.

Nile Champe.
Chas. Dyer.
J. M. Dwyer.
Samuel Love.
Clarence Lowry.
William Morrison.

Horace Davis.
U. G. Harless.
J. B. Hopkins.
Jno. Kinney.
Henry Kinney.
R. I. Kyle.
George Love.
Luther Montgomery.
Howard Montgomery.
Garfield Newby.
Chas. O'Brien.
Joseph Porter.
Wm. Pinkney.

GIRLS.

Janet Allen.
Hattie Cutts.
Lena Cohen.
Mattie Carlin.
Annie Crusenberry.
Florence Davin.
Maud Delay.
Gracie Davis.
Lillie Edwards.
Edith Embleton.
Honor Griffiths.
Lillian Gooch.
Maggie Hamilton.
May Hamilton.
Annie Johnson.
Katie Kinney.
Helen Kelley.
Katie Kelley.
Nola Kirkwood.
Goldie Lloyd.
Myra Moore.
Alice O'Brien.
Sadie O'Brien.
Mary Pinkney.
Lelia Payne.
Pearl Payne.
Ella Porter.
Julia Ripley.
Lucy Richardson.
Bessie Smith.
Lillian Stanley.
Myrtle Smith.
Katie Tasker.
Ella Taylor.
Posia Taylor.
Ollie Toney.
Minnie Toney.
Annie Waggener.
Bertha Willis.
Gussie Walker.

Total.. 59
Total in the University..... 463

Total Number of Students..... 522

ALUMNI ASSOCIATIONS.

OFFICERS OF GENERAL ALUMNI ASSOCIATION.

James H. Stewart.....President.
Raymond City, W. Va.
Robert A. Armstrong.....Treasurer and Secretary.
Morgantown, W. Va.

OFFICERS OF LOCAL ALUMNI ASSOCIATIONS.

CHARLESTON.

James F. Brown.....President.
J. Talman Waters.....Treasurer and Secretary.

CHICAGO.

Charles E. Grafton.....President.
James E. Brown.....Treasurer and Secretary.

EASTERN PANHANDLE.

H. H. Emmert.....President.
C. E. Martin.....Treasurer and Secretary.

HUNTINGTON.

J. J. Peterson.....President.
Miss Lillian Hackney.....Treasurer and Secretary.

PARKERSBURG.

H. L. Caswell.....President.
John T. Cooper.....Treasurer and Secretary.

WESTERN PANHANDLE.

Wheling, W. Va.

H. C. Ogden.....President.
F. C. Cox.....Treasurer and Secretary.

ALUMNI.

Alumni Association.

OFFICERS FOR 1896 AND 1897.

Hon. J. H. Stewart.....President.
Robt. A. Armstrong.....Secretary and Treasurer.

GRADUATES.

1870.

Hon. M. H. Dent, A. M., Grafton, W. Va., Judge of Supreme Court of Appeals of West Virginia.

1871.

O. H. Dille, M. S., Morgantown, W. Va., farmer.
W. E. Jolliffe, A. M., Morgantown, W. Va., business.

1872.

John H. Drabell, A. M., Des Moines, Iowa, lawyer.
A. E. McLane, Steubenville, Ohio, merchant.
B. W. Smith, A. M., Minneapolis, Minn., lawyer.
I. C. White, A. M., Ph. D., Morgantown, W. Va., geologist, associate editor American Geologist, Fellow of Amer. Philos. Soc., Fellow Geological Soc. America, etc.

1873.

Hon. Chas. M. Babb, A. M., Greenland, W. Va., farmer, Chm. Co. Rep. Co.
D. W. Border, A. M., M. D., Kearneysville, W. Va., physician.
W. L. Boughner, M. S., Palatine, W. Va., farmer.
Hon. Jas. F. Brown, A. M., Charleston, W. Va., lawyer and Regent of West Virginia University.
E. T. Bullock, A. M., Parkersburg, W. Va., deceased.
John T. Harris, M. S., Washington, D. C., Sec'y to U. S. Senator S. B. Elkins; Clerk of West Virginia State Senate.
Geo. P. Lynch, M. S., Atcheson, Kansas, lawyer.
T. B. McClure, M. S., Wayne, C. H., W. Va., Prin. Oakview Academy.
Thomas H. Price, M. S., M. D., Bridesport, Pa., Physician.
D. B. Purinton, A. M., Ph. D., LL. D., Granville, Ohio, Pres. Denison University; Pres. Ohio Baptist Education Society; Pres. Ohio College Asso.; author "Christian Theism."
Hon. M. L. Temple, A. M., Osceola, Iowa, lawyer, member of Iowa State Legislature.
Jas. T. Waters, A. M., Charleston, W. Va., lawyer; clerk U. S. Circuit Ct.

1874.

R. V. Chadwick, A. M., Deceased.
Rev. J. S. W. Dean, A. M., S. T. B., Ph. D., D. D., Pastor M. E. Church, Wymore, Nebraska.

Rev. Wm. H. Howell, A. M., Marysville, Kansas, Pastor Presbyterian Church.
Hon. T. P. Jacobs, A. M., New Martinsville, W. Va., Ex-Judge Fourth Judicial Circuit.
Hon. Chas. W. Lynch, A. M., Clarksburg, W. Va., Lawyer, Ex-Member Legislature, Ex-Prosecuting Attorney.
Rev. E. E. Moran, A. M., Ironton, Ohio, Pastor Presbyterian Church.
Frank Woods, A. M., Baltimore, Md., 812 Equitable Bld'g, Lawyer.

1875.

S. S. Adams, A. M., M. D., Washington, D. C., Professor National Medical College; Sec. Medical Society, D. C.
Rev. R. H. Dolliver, A. M., B. D., Paw Paw, Ill., Pastor M. E. Church.
Hon. J. P. Dolliver, A. M., Ft. Dodge, Iowa, Congressman from Tenth District, Iowa.
F. A. Golden, B. S., Marsfield, Oregon, Principal City Schools.
Jas. V. Martin, A. M., Deceased.
Hon. J. J. Peterson, A. M., Huntington, W. Va., Editor "Herald;" Ex-U. S. Consul to Honduras, C. A.
A. L. Purinton, A. M., Ph. D., M. D., Nashville, Tenn., Professor of Chemistry, Normal College.

1876.

John C. Anderson, M. S., Los Angeles, Cal., Business.
L. H. Frasher, A. M., Uniontown, Pa., Lawyer.
H. D. Hubbard, M. S., Deceased.
W. O. Ison, A. M., Washington, D. C., Treasury Department.
H. M. Kemp, M. S., M. D., Alexander, W. Va., Physician; Ex-member Maryland Legislature.
Geo. S. Laidley, M. S., Charleston, W. Va., Supt. of City Schools.
Jas. H. Nash, M. S., M. D., Charleston, W. Va., Lawyer.
D. E. Wetzel, M. S., M. D., Jacobson Bld'g, Denver, Colo., Physician.

1877.

Brown, W. G., Jr., A. M., Kingwood, W. Va., Lawyer.
Dille, C. B., A. M., LL. B., Morgantown, W. Va., Lawyer.
J. H. Hawthorne, A. M., Att'y-at-Law, Kansas City, Mo., City Judge.
Thos. M. Hood, A. M., M. D., Weston, W. Va., Physician.
D. R. Rogers, A. M., M. D., Ragan, Nebraska, Physician.
E. C. Smith, M. S., Ravenswood, W. Va., Bank Cashier and Lawyer.
Hon. H. J. Snively, A. M., North Yakima, Washington, Att'y-at-Law.
John L. Steele, A. M., 431 Tenth St., Washington, D. C., with "Washington Times."
Jas. S. Stewart, M. S., Morgantown, W. Va., Prof. Mathematics, West Virginia University.

1878.

A. F. Courtney, B. S., Deceased.
Hon. A. G. Dayton, A. M., Philippi, W. Va.,, Member of Congress, Second District.
Jas. McM. Lee, A. M., Lewisburg, W. Va., Principal of Lee Military Academy; Member of Board of Regents of West Virginia University.
Rev. E. J. Marsh, A. M., Prof. University of Southern California, Los Angeles.
Hon. B. S. Morgan, A. M., Charleston, W. Va., Ex-State Supt. of Schools, Lawyer.
Daniel Rich, A. M., South Bend, Indiana, Lawyer.

1879.

Geo. D. Purinton, A. M., Ph. D., M. D., Deceased.
W. A. Rogers, A. M., Cincinnati, Ohio, Lawyer.
S. S. Wade, M. S., M. D., Morgantown, W. Va., Physician.

1880.

Chas. E. Grafton, M. S., C. E., Member Am. Soc. C. E., Road Master I. C. R. R., La Salle, Ill.
B. L. Keenan, M. S., Wichita, Kansas, Lawyer.
Rev. J. N. Marsh, A. M., Los Angeles, Cal., Prof. in Southern Cal. University.

Hon. Geo. A. Pearre, A. M., Cumberland, Md., Att'y-at-Law; Ex-State Senator; Pros. Attorney.
Rev. A. A. Waters, A. M., B. D., Prof. Natural Sciences, Hedding College Abingdon, Ill.

1881.

Thos. E. Hodges, A. M., Morgantown, W. Va., Prof. of Physics West Virginia University; Member of State Board of School Examiners.
Wm. H. Hyland, A. M., Osceola, Iowa, Supreme Court Reporter.
H. N. Ogden, A. M., Lit. D., Chicago, Ill., Lawyer.

1882.

T. R. Boyd, A. B., Deceased.
Z. K. Brown, A. M., M. D., Virginia City, Minn., Physician.
D. H. Courtney, A. M., M. D., Morgantown, W. Va., Physician.
A. L. Cox, M. S., Sweetbrier, Texas, Teacher.
Theophilus E. Hodges, A. M., Buckhannon, W. Va., Farmer.
Rev. E. D. Jeffries, M. S., Alderson, W. Va., Pastor Presbyterian Church.
J. H. Lawhead, M. S., M. D., West Newton, Pa., Physician.
G. C. Lewis, A. M., Pittsburg, Pa., Lawyer.
Hon. Jas. H. Stewart, A. M., LL. B., Raymond City, W. Va., Ex-State Senator.

1883.

George C. Baker, A. M., LL. B., Morgantown, W. Va., Lawyer.
W. T. Bland, M. S., LL. B., Atcheson, Kansas, Lawyer, District Judge.
L. M. Boyers, A. M., LL. B., Deceased.
Benjamin Brown, A. M., LL. B., Denver, Colo., Lawyer, Real Estate Dealer.
S. B. Brown, A. M., Morgantown, W. Va., Prof. of Geology, W. Va. University; Fellow Amer. Acad. Soc. and Pol. Sci.
J. F. Cork, A. M., LL. B., Charleston, W. Va., Lawyer.
Rev. Geo. B. Foster, A. M., Ph. D., Chicago University, Chair of Theol.
Walter Hough, A. M., Ph. D., Curator Department of Ethnology, Smithsonian Institution, Washington, D. C.
John L. Johnston, M. E., C. E., Morgantown, W. Va., Prof. of Civil and Mining Engineering, West Virginia University.
I. G. Lazzell, A. M., LL. B., Morgantown, W. Va., Lawyer, Pros. Attorney of Monongalia County.
J. E. Musgrave, A. M., M. D., Handley, W. Va., Physician for C. & O. Rd.
S. P. Wells, Jr., M. S., Chicago, Ill., Manager for the Babcock and Wilcox Co.

1884.

Watson Barbe, M. S., Parkersburg, W. Va., Field Agent of the West Virginia University, Author of "Ashes and Incense" and "In the Virginias," Member Board of Regents Normal Schools.
R. C. Berkeley, A. M., C. E., Chicago, Ill., Civil Engineer, 1122 Monadnock Block; Gen'l Agent Penn Bridge Co.
W. H. Michael, A. M., New York City, Lawyer.
H. L. Robinson, A. M., LL. B., Uniontown, Pa., Lawyer.

1885.

N. D. Adams, A. M., Deceased.
Robert Armstrong, M. S., Point Pleasant, W. Va., Business.
A. B. Rush, A. M., Bolivar, Mo., Pres. Southwest Baptist College.
Harvey Fleming, A. M., Managing Editor Kansas City, Mo., "Journal."
B. W. Meadows, A. M., Deceased
Hon. J. D. Sweeney, M. S., Athens, W. Va., Principal Athens State Normal School.
R. W. Tapp, A. M., Deceased.

1886.

Robt. A. Armstrong, A. M., Morgantown, W. Va., Prof. of English, West Virginia University, Fellow Amer. Acad. S. & P. Sci.
W. N. Berkeley, A. B., Ph. B., M. D., New York City, Physician, Clin. Asst. New York Polyclinic Med. School, Inspector of Schools for New York Board of Health.
R. W. Dawson, A. B., LL. B. Uniontown, Pa., Lawyer.
T. R. Shepherd, A. B., LL. B., Huntington, W. Va., Lawyer.

Rev. N. M. Waters, A. B., B. D., Evanston, Ill., Pastor M. E. Church.
Z. F. Yost, B. S., LL. B., Pontiac, Ill., Lawyer, City Attorney.

1887.

J. E. Charles, B. S., 19½ High St., Columbus, O., Real Estate Dealer.
E. S. Elliott, A. B., LL. B., Chicago, Ill., Lawyer, 1103 Home Ins. Bld'g.
H. C. Ogden, A. B., Wheeling, W. Va., Editor "Evening News."
Thos. G. Rector, M. S., Condova, Argentine Republic, Signal Service.
Leroy Swann, B. S., Connelsville, Pa., Business.

1888.

James D. Cox, A. B., M. D.——
H. H. Emmert, B. S., LL. B., Martinsburg, W. Va., Lawyer.
Hon. C. Hartmeyer, A. B., LL. B., Bruceton, W. Va., Lawyer.
Rev. H. H. Ryland, A. B., ————Pa., Pastor of Presbyterian Church.
Frank Snyder, A. B., Uniontown, Pa., Business.
D. L. Jamison, A. B., LL. B., Gas City, Ind., Pastor of Baptist Church.

1889.

B. C. Alderson, A. M., Post Graduate Student, University of Chicago.
J. E. Brown, B. S., LL. B., Chicago, Ill., Lawyer, 1370 Unity Building.
G. B. Chorpening, B. S., Clarksburg, W. Va., Business.
Jas. E. Dawson, A. B., LL. B., Uniontown, Pa., Lawyer.
Chas. N. Finnell, A. B., LL. B., Keyser, W. Va., Lawyer.
G. G. Heiner, A. B., Washington, D. C., Lieut. U. S. 4th Artillery.
A. J. Hare, A. B., Morgantown, W. Va., Instructor in W. Va. University.
J. A. Jackson, A. B., Denver, Colo., Lawyer.
Rev. L. A. Lindemuth, A. B., Moosic, Pa., Pastor Presbyterian Church.
Chas. Rankin, B. S., Roanoke, Va., Civil Engineer, N. & W. R. R.
Rev. J. L. Roemer, A. B., Cleveland, Ohio, Pastor Presbyterian Church, 158 Brainard Ave.
Rev. H. G. Stoetzer, A. B., Moredale, Pa., Pastor Presbyterian Church.

1890.

Harvey Brand, A. B., Morgantown, W. Va., Principal of City Schools.
F. W. Clark, A. B., LL. B., New Martinsville, W. Va., Lawyer.
L. J. Corbly, A. B., Huntington, W. Va., Prin. of State Normal School.
B. H. Hite, M. S., Morgantown, W. Va., Chemist Agr. Experiment Station.
W. F. Reynolds, A. M., Granville, O., Instructor in Denison University.
E. H. Vickers, A. M., Charles Town, W. Va., Post Graduate Student, Berlin University, Germany.
Rev. E. E. Woodson, A. B., Bridgeport, W. Va., Pastor of Baptist Church.

1891.

Rev. A. B. Cooper, A. B., Columbus Junction, Iowa, Pastor Pres. Church.
J. E. Davis, A. B., LL. B., Chicago, Ill., Lawyer, 1310 Unity Bld'g.
C. R. Duvall, B. S., Martinsburg, W. Va.
J. E. Galford, B. S., LL. B., Weston, W. Va., Lawyer, Mayor City.
U. S. G. Hayes, B. S., Morgantown, W. Va.
C. McC. Lemley, C. E., Pencoyd, Pa., with Pencoyd Iron Works.
T. D. Lynch, C. E., Chicago, Ill., Civil Engineer, Inspector of Steel for U. S. Navy.
Hattie E. Lyon, A. B., (Mrs. Franklin Jewett), Fredonia, N. Y.
M. D. Post, A. B., LL. B., Wheeling, W. Va., Lawyer.
F. G. Ross, C. E., Pittsburg, Pa., Civil Engineer.
J. R. Trotter, A. M., (Harvard) Charleston, W. Va., State Supt. of Schools.
Chas. L. White, A. B., Pastor Pres. Church, Clarksburg, W. Va.
P. C. White, A. B., Weston, W. Va., Pastor Presbyterian Church.
DeWitt White, A. B., West Bend, Iowa, Pastor Pres. Church.

1892.

G. M. Alexander, B. S., LL. B., Fairmont, W. Va., Lawyer, Prosecuting Attorney for Marion County.
Conroll C. Coffman, B. S., C. E., Mannington, W. Va., Civil Engineer, with South Penn Oil Co.
George M. Ford, A. B., Principal of Benwood Schools.
Rev. J. W. Francis, A. B., Richland Centre, Wis., Pastor Pres. Church.
Ezra C. Garlow, B. S., C. E., Pittsburg, Pa., Civil Engineer.
John A. Grier, B. S., M. D., Sistersville, W. Va., Physician.

J. M. Hackney, A. B., Morgantown, W. Va., Business.
J. T. Holbert, B. S., C. E., Ft. Defiance, Arizona Ty., Civil Eng., Ass. Supt. Navajo Irr. Survey.
Rev. Hough Houston, A. B., B. D., Pine Bush, N. Y., Pastor M. E. Church.
Rev. Lin M. Jaco, A. B., LL. B., Morgantown, W. Va., Teacher in Public Schools.
Chas. B. Sisler, A. B., Senatobia, Miss., Princ. of Senatobia Schools.
E. L. Zearley, B. S., C. E., Scottdale, Pa., Civil Engineer, with McClure Coke Company.

1893

W. A. Burdett, A. B., Guyandotte, W. Va., Principal of Schools.
W. J. Eddy, A. B., Newton Theol. Sem., Newton Centre, Mass.
Lulu Garlow, A. B., Deceased.
C. W. Gore, A. B., Clarksburg, W. Va., Lawyer.
S. W. Graham, A. B., Tampa, Fla.
Lillian Hackney, A. B., Huntington, W. Va., Teacher in Marshall College.
E. T. Hartman, A. B., Chicago, Ill., 169 Wabash Ave., with Harper & Bro.
W. C. Meyer, A. B., LL. B. (Yale), Wheeling, W. Va., Lawyer; Prosecuting Attorney for Ohio County.
Sarah L. Norris, A. B., (Mrs. E. M. Showalter), Fairmont, W. Va.
A. H. Sheppard, A. B., Elizabeth, W. Va., Teacher.
A. B. Smith, A. B., Uniontown, Pa.
Altha Warman, A. B., Morgantown, W. Va., Teacher.
Braxton Davenport, B. S., Cleveland, Ohio, Lawyer, New England Bld'g; Counsel for B. & O. R. R.
F. M. Minshall, B. S., C. E., New York City, Civil Engineer.

1894.

Robert E. L. Allen, A. B., LL. B., Morgantown, W. Va., Lawyer.
Macker Babb, A. B., Medley, W. Va., Farmer.
John T. Cooper, B. S., Parkersburg, W. Va., Teacher in Parkersburg High School.
G. Fred Dorsey, A. B., Pittsburg, Pa., Business.
Joseph L. Henderson, A. B., Tyler, Texas, Principal of Schools.
John W. Hughes, B. S., C. E., Mannington, W. Va., Civil Engineer, with South Penn Oil Company.
Sam R. Jenkins, B. S., C. E., Grafton, W. Va., Civil Engineer, City Engineer.
Jas. W. Johnson, B. Agr., Mem. Expr. Sta. Staff of W. Va., Agr. Expr. Station.
Geo. W. Johnson, A. B., LL. B., Martinsburg, W. Va., Lawyer, City Attorney, Regent of State Normal Schools.
Clement R. Jones, B. S., C. E., Instructor in Dept. of Mechanical Engineering, West Virginia University, Morgantown, W. Va.
Chas. E. Krebs, B. S., C. E., Charleston, W. Va., Engineer, with W. Va. S. R. R. and Charlmore Coal Co.
John Nuzum, A. B., Glenville, W. Va., Teacher in Glenville State Normal School.
Jas. W. Paul, B. S., C. E., Newberg, W. Va., Civil Engineer, Chief Inspector of Mines of West Virginia.
Robt. H. Ramsey, A. B., Medical Student in University of Pennsylvania.
Kemble White, A. B., Belton, W. Va., Merchant.
John W. Wiles, A. B., Morgantown, W. Va., Real Estate Dealer.

1895.

W. B. Cutright, A. B., Assistant in Preparatory Department of West Virginia University, Morgantown, W. Va.
C. E. Carrigan, A. B., Wheeling, W. Va., Prin. Upper Benwood School.
T. L. Davies, A. B., Spencer, W. Va., Principal Spencer Schools.
M. E. Gorman, A. B., Morgantown, W. Va., Teacher.
W. J. Holden, A. B., Glenville, W. Va., Principal Glenville State Normal School.
S. S. Jacob, Jr., A. B., West Liberty, W. Va., Assistant in West Liberty State Normal School.
G. H. A. Kunst, A. B., Weston, W. Va., Student in Law at W. V. U.
U. S. G. Kendall, A. B., Fairmont, W. Va., Lawyer; Mayor of City.
T. M. Lavell, B. S., C. E., Wissahickon, Philadelphia, Pa., with Pencoyd Iron Works, as Engineer.
Russell Morris, B. S., C. E., Morgantown, W. Va., Assistant in Civil Engineering Department of W. V. U.
P. B. Martin, B. S., Kingwood, W. Va., Teacher.

J. B. Pritzman, A. B., Rock Lick, W. Va., Teacher.
C. N. Ridgeway, A. B., Hospital, Ill., Assistant Steward of Ill. Hospital.
Silas Stathers, B. S. C. E., Wheeling, W. Va., Assistant City Engineer, Post Graduate Student at W. V. U.
J. F. Strader, A. B., Beverly, W. Va., Attorney-at-Law.
Anna White, B. S., Morgantown, W. Va., Teacher.
Stella White, B. S., Morgantown, W. Va., Teacher.

1876.

George Alderson, Jr., A. B., Alderson, W. Va.
T. W. Haught, A. B., Buckhannon, W. Va., Teacher in Conference Sem.
Josiah Keely, A. B., Charleston, W. Va., Teacher.
J. C. Longanecker, A. B., Morgantown, W. Va.
D. B. Kinkaid, A. B., Denver, Colo., Attorney-at-Law.
Miss Mabel Curry Reynolds, A. B., Morgantown, W. Va.
E. B. Pearcy, A. B., Normantown, W. Va.
J. C. Sanders, A. B., Maidsville, W. Va.
P. C. McBee, B. S., Principal Terra Alta, W. Va., Schools.
J. M. Kunkel, B. S., Morgantown, W.Va., Local Editor "New Dominion."
Jackson Arnold, A. B. L., Arnold, W. Va.
W. E. Baker, B. S. L., Beverly, W. Va.
T. C. Johnson, B. S. Agr., Assistant in Lee Militry Academy, Lewisburg, W. Va.
A. F. Rader, B. S. C. E., Chicago, Ill., with Ferris Bridge and Construction Company.
B. H. Hall, B. S. M. E., Principal Harrisville, W. Va., Schools.

LAW GRADUATES.

1879.

William R. Thompson, Att'y-at-Law, Huntington, W. Va.

1880.

Frank T. Haymond, Att'y-at-Law, Morgantown, W. Va.
Waitman T. Houston, Morgantown, W. Va.

1881.

E. W. Bedinger, Jr., Atty-at-Law, Middleton, Ky.
Samuel C. Kelley, Deceased.

1882.

A. L. Cox, A. B., Texas.
L. C. Tabb, Bluefield, W. Va., Attorney and Land Agent.

1883.

Frank Cox, Att'y-at-Law, Morgantown, W. Va.
S. A. Hayes, Att'y-at-Law, Glenville, W. Va.
Melville Peck, Att'y-at-Law, Philippi, WW. Va.
William Rich, Att'y-at-Law, South Bend, Indiana.
John W. Wiltshire, Charles Town, W. Va., Deceased.

1884.

Meigs Bland, Att'y-at-Law, Clarksburg, W. Va.
W. T. Bland, M. S., Att'y-at-Law, Atcheson, Kansas; District Judge.
J. F. Cork, A. M., Att'y-at-Law, Charleston, W. Va.
I. G. Lazzell, A. M., Att'y-at-Law, Morgantown, W. Va., Prosecuting Attorney of Monongalia County.
Hon. B. S. Morgan, A. M., Att'y-at-Law, Charleston, W. Va., Ex-State Supt. of Schools.

1885.

B. L. Keenan, A. M., Att'y-at-Law, Wichita, Kansas.
F. Lively, Att'y-at-Law, Hinton, W. Va.
Hon. Jas. H. Stewart, A. M., Raymond City, W. Va., Ex-State Senator.
H. J. Sturgiss, Att'y-at-Law, Oklahoma Territory.

1886.

George C. Baker, A. M., Att'y-at-Law, Morgantown, W. Va.
L. M. Boyers, A. M., Deceased.
George E. Boyd, Att'y-at-Law, Wheeling, W. Va.
C. B. Dille, A. M., Att'y-at-Law, Morgantown, W. Va.
Hon. R. E. Fast, Att'y-at-Law, Morgantown, W. Va., State Senator.
S. M. Musgrave, Att'y-at-Law, Grafton, W. Va.
H. L. Robinson, A. M., Att'y-at-Law, Uniontown, Pa.

1887.

R. E. L. Blackwood, Att'y-at-Law, Lock Seven, W. Va.
R. W. Dawson, Att'y-at-Law, Uniontown, Pa.
E. S. Elliott, A. B., Att'y-at-Law, Chicago, Ill.
L. H. Keenan, Att'y-at-Law, Elkins, W. Va.
J. M. McGrath, Att'y-at-Law, Princeton, W. Va.
A. L. Romine, Clarksburg, W. Va.
Hon. E. P. Rucker, Welch, W. Va., Att'y-General of West Virginia.
J. W. Smith, Maidsville, W. Va., Deceased.
M. F. Snyder, Att'y-at-Law, West Union, W. Va.

1888.

Charles A. Clark, Att'y-at-Law, Hinton, W. Va., City Attorney.
Alexander Dupuy, Att'y-at-Law, Cameron, Cameron Parish, La.
Melville H. Fleming, A. M., Atty-at-Law, Crete, Neb., County Attorney.
Lewis C. Lawson, Att'y-at-Law, Clarksburg, W. Va.
R. K. McComb ———
A. F. Morris, Att'y-at-Law, Hamlin, W. Va.
Geo. I. Neal, Att'y-at-Law, Huntington, W. Va., City Attorney.
U. S. G. Pitzer, Att'y-at-Law, Martinsburg, W. Va., Prosecuting Attorney of Berkeley County.
Thos. R. Shepherd, A. B., Atty-at-Law, Huntington, W. Va.
T. J. Woofter, Prof. Mathematics, Mercer University, Macon, Ga.

1889.

W. B. Cornwell, Att'y-at-Law, Romney, W. Va., Prosecuting Attorney of Hampshire County.
N. C. McNeil, Marlington, W. Va., State Senator.
W. L. P. Peyton, Att'y-at-Law, Ogden, Utah.
Hon. Stuart F. Reed, Clarksburg, W. Va., Editor "Telegram," State Senator.
Ed. G. Smith, Att'y-at-Law, Clarksburg, W. Va.
J. F. Wilson, Att'y-at-Law, Grafton, W. Va.
Thos. Y. Yates, Att'y-at-Law, Grafton, W. Va.

1890.

A. S. Alexander, Att'y-at-Law, Winfield, W. Va., Prosecuting Attorney of Putnam County.
J. E. Chipley, Att'y-at-Law, Moorefield, W. Va.
F. H. Garrett, Ohio.
D. L. Jamison, A. B., Gas City, Ind., Pastor of Baptist Vhurch.
Robert L. Keadle, Att'y-at-Law, Union, W. Va., Prosecuting Attorney of Monroe County.
Tucker H. Ward, Huttonsville, W. Va., Farmer and Stock Breeder.

1891.

Benjamin F. Bailey, Att'y-at-Law, Grafton, W. Va.
S. E. Boggess, Att'y-at-Law, Spencer, W. Va., Prosecuting Attorney of Roane County.
Lynn Brannon, Att'y-at-Law, Glenville, W. Va.
Jas. E. Brown, B. S., Att'y-at-Law, Chicago, Ill.
W. L. Camden, Att'y-at-Law, 5 E. Lexington Street, Baltimore, Md.
Frank W. Clark, A. B., Att'y-at-Law, New Martinsville, W. Va.
L. J. Cobun, Philippi, Deceased.
T. J. Cummings, Att'y-at-Law, Weston, W. Va.
Jas. E. Davis, A. B., Att'y-at-Law, Chicago, Ill.
Jas. E. Dawson, A. B., Att'y-at-Law, Uniontown, Pa.
W. E. Hines, Att'y-at-Law, Sutton, W. Va.
R. E. L. Hutchinson, Att'y-at-Law, Huntington, W. Va.
C. E. Morris, Att'y-at-Law, Wheeling, W. Va.

E. H. Morton ,Att'y-at-Law, Addison, W. Va.
W. S. O'Brien, Atty-at-Law, Buckhannon, W. Va.
C. B. Riggle, Att'y-at-Law, Middlebourne, W. Va.
J. B. Settle, Att'y-at-Law, Fayetteville, W. Va.
C. R. Summerfield, Att'y-at-Law, Fayetteville, W. Va.

1892.

Geo. M. Alexander, A. B., Att'y-at-Law, Fairmont, W. Va., Prosecuting Attorney of Marion County.
John A. Bell, Richmond, Ky., Pension Examiner.
Carey M. Bennett, Att'y-at-Law, Glenville, W. Va., Prosecuting Attorney of Gilmer County.
John T. Carney, Oklahoma.
John S. Cogar, Att'y-at-Law, Addison, W. Va., Prosecuting Attorney of Webster County.
John R. Darrah, Att'y-at-Law, Washington, Pa.
Richard L. Fleming, Att'y-at-Law, Fairmont, W. Va.
C. B. Hall, Att'y-at-Law, Morgantown, W. Va.
J. W. Harman, Att'y-at-Law, Petersburg, W. Va.
Hon. H. W. Harmer, Att'y-at-Law, Clarksburg, W. Va., Normal School Regent.
I. C. Herndon, Att'y-at-Law, Welch, W. Va.
Z. Kauroku, Japan.
I. R. Mattingly, Att'y-at-Law, Parkersburg, W. Va.
J. H. Morris, Att'y-at-Law.
C. M. Murphy, Att'y-at-Law, Philippi, W. Va., Prosecuting Attorney of Barbour County.
A. S. Poling, Att'y-at-Law, Philippi W. Va., Editor "Barbour Democrat."
M. D. Post, A. B., Att'y-at-Law, Wheeling, W. Va.
A. G. P. Price, Att'y-at-Law, Marlinton, W. Va.
E. M. Showalter, Att'y-at-Law, Fairmont, W. Va.

1893.

C. M. Alderson, Att'y-at-Law, Charleston, W. Va.
B. W. Chambers, Att'y-at-Law, Spencer, W. Va.
O. J. Chambers, Att'y-at-Law, Spencer, W. Va.
W. G. Conley, Att'y-at-Law, Parsons, W. Va., Prosecuting Attorney of Tucker County.
S. Hamilton Day, B. D., D. D., St. Augustine, Fla., Pastor M. E. Church.
C. N. Finnell, Att'y-at-Law, Keyser, W. Va.
S. F. Glasscock, Att'y-at-Law, Morgantown, W. Va.
J. G. Gorman, Att'y-at-Law, Morgantown, W. Va.
M. LeMasters, Att'y-at-Law, Cross Roats, W. Va.
C. R. Martin, Att'y-at-Law, Middlebourne, W. Va.
R. E. Talbott, Att'y-at-Law, Philippi, W. Va., Clerk of Circuit Court.
B. E. Warne, Att'y-at-Law, Washington, Pa.
Z. F. Yost, Att'y-at-Law, Pontiac, Ill., City Attorney.

1894.

G. W. Bland, Att'y-at-Law, West Union, W. Va.
H. B. Davenport, C. E., LL. B., Att'y-at-Law, Clay, W. Va.
C. Hartmeyer, A. B., Att'y-at-Law, Bruceton, W. Va.
J. E. Galford, A. B., Att'y-at-Law, Weston, W. Va.
G. W. Johnson, A. B., Att'y-at-Law, Martinsburg, W. Va., City Attorney, Regent State Normal Schools.
J. H. Lazear, Att'y-at-Law, West Liberty, W. Va.
C. W. May, Att'y-at-Law, Hamlin, W. Va., Prosecuting Attorney of Lincoln County.
J. C. McWhorter, Att'y-at-Law, Buchannon, W. Va.
Jerome Dudding, Att'y-at-Law, Winfield, W. Va.
H. A. Steed, Sistersville, W. Va., in Business.
P. M. Summers, Att'y-at-Law, Clay C. H., W. Va.
J. H. Collins, Att'y-at-Law, Uniontown, Pa.
S. Halstead, Kester X Lanes, W. Va.
O. A. Hood, Att'y-at-Law, Maysville, W. Va.
C. A. Goodwin, Att'y-at-Law, Morgantown, W. Va.
W. B. Kittle, Att'y-at-Law, Philippi, W. Va.
I. Lowenstein, Att'y-at-Law, Charleston, W. Va.
Wm. MacDonald, Att'y-at-Law, Keyser, W. Va.
F. S. Miller, Dunkard, Pa., Farmer and Stock Breeder.
E. W. Nowlan, Att'y-at-Law, Hinton, W. Va.
H. A. Somerville, Att'y-at-Law, ,Elizabeth, W. Va.
W. H. Sawyers, Att'y-at-Law, Hinton, W. Va.
C. Wilson, Att'y-at-Law, Ritchie C. H., W. Va.

1895.

R. E. L. Allen, A. B., Att'y-at-Law, Morgantown, W. Va.
L. H. Barnett, Att'y-at-Law, Glenville, W. Va.
L. D. Beall, Att'y-at-Law, Uniontown, Pa.
F. C. Cox, Att'y-at-Law, Wheeling, W. Va.
R. L. Clarke, Att'y-at-Law, Union, W. Va.
S. R. Davis, Att'y-at-Law, Morgantown, W. Va.
W. Grablachoff, Att'y-at-Law, Charles Town, W. Va.
L. Greynolds, Att'y-at-Law, Beverly, W. Va.
W. J. Holden, A. B., Glenville, W. Va., Principal of Glenville State Normal School.
A. D. Ireland, Att'y-at-Law, Harrisville, W. Va.
L. M. Jaco, A. B., Morgantown, W. Va., Teacher in Public School.
H. M. Lockbridge, Att'y-at-Law, Huntersville, W. Va.
Tokichi Masao, Japan.
G. W. McCauley, Att'y-at-Law, Moorefield, W. Va., Prosecuting Attorney of Hardy County.
J. T. McDonald, Mann, W. Va.
C. S. Morrison, Att'y-at-Law, Bellaire, Ohio.
Agnes Morrison, Att'y-at-Law, Bellaire, Ohio.
W .E. Patterson, Att'y-at-Law, Wheeling, W. Va.
C. J. Poe, Att'y-at-Law, Buckhannon, W. Va.
D. C. Reay, Att'y-at-Law, Morgantown, W. Va.
G. B. Scott, A. B., Att'y-at-Law, Womelsdorff, W. Va.
H. Shaw, Att'y-at-Law, Fairmont, W. Va.
E. J. Somerville, Att'y-at-Law, Point Pleasant, W. Va.
B. F. Sterling, Att'y-at-Law, Uniontown, Pa.
W. T. Talbott, Att'y-at-Law, Addison, W. Va.
J. T. Wilson, Att'y-at-Law, 135 Fifth avenue, McKeesport, Pa.

1896.

Luther Colfax Anderson, A. B., Charleston, W. Va., Clerk in Office of State Supt. of Free Schools.
J. M. Baker, Sandyville, W. Va.
George L. Bambrick, New Cumberland, W. Va.
J. H. S. Barlow, Kingwood, W. Va.
S. Brice Blair, Moundsville, W. Va.
William Goshorn Caldwell, A. B., Wheeling, W. Va.
Oscar A. Campbell, Morgantown, W. Va.
Olin Carter, Elk City, W. Va.
David Clate Casto, Jackson C. H., W. Va.
E. C. Eagle, Lobelia, W. Va.
Geo. M. Ford, A. B., Benwood, W. Va.
Loraine Fortney, Independence, W. Va.
Claude Webster Gore, A. B., Clarksburg, W. Va.
Wilburn W. Hall, Madison, W. Va.
W. M. Hess, Bingamon, W. Va.
T. J. Hickel, Richardson, W. Va.
Geo. W. Hott, Harper's Ferry, W. Va.
Clarence Frank Jolliff, Uniontown, W. Va.
E. L. Judy, Pansy, W. Va.
D. B. Kinkaid, A. B., Denver, Colorado.
John O. Lemen, Martinsburg, W. Va.
Hunter Holmes Moss, Jr., Parkersburg, W. Va.
Allen Billmyer Noll, Martinsburg, W. Va.
Arthur Cary Pierce, Shepherdstown, W. Va.
Ernest Randolph, Salem, W. Va.
Frank P. Rush, Uniontown, Pa.
John Newton Smith, Morgantown, W. Va.
A. Robert Stallings, Medley, W. Va.
Judson Lowell Stevens, Winfield, W. Va.
Edgar Stewart, Martinsburg, W. Va.
Thomas Shriver Stiles, Cross Roads, W. Va.
J. F. Strader, A. B., Beverly, W. Va.
J. M. S. Wade, Parkersburg, W. Va.
Buckhannon White, Weston, W Va.
Frank A. Wolfhope, New Baltimore, Pa.
William Sydney Wysong, Ronceverte, W. Va.
J. W. Yeager, Marlinton, W. Va.

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Commandant and Staff.

West Virginia University,

MORGANTOWN, W. VA.

CATALOGUE

1897-98.

MORGANTOWN, W. VA.

PUBLISHED BY THE UNIVERSITY.

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1898

JANUARY

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1899

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CALENDAR.

1898.

May 30, Monday, ... - Memorial Day; a holiday.
May 31 to June 3, ... Quarterly Examinations.
June 3, Friday, 8 P. M., ... Moot Court.
June 4, Saturday, 8 P. M., . . Regents' Prize Declamation Contest.
June 5, Sunday, 11 A. M., ... Baccalaureate Sermon.
June 6, Monday, 10 A. M., . Company Competition for Corps Colors.
June 6, Monday, 2 P. M., ... Senior Class Day.
June 6, Monday, 8 P. M., Woman's League Prize Declamation Contest.
June 7, Tuesday, 10 A. M., . Closing Recital of the School of Music.
June 7, Tuesday, 2 P. M., ... Competitive Drill.
June 7, Tuesday, 8 P. M., ... Inter-Society Contest.
June 8, Wednesday, 2 P. M., ... Field Day.
June 8, Wednesday, 8 P. M., . . . Wiles Prize Oratorical Contest.
June 9, Thursday, 10 A. M., ... Commencement Exercises.
June 9, Thursday, 2.30 P. M., ... Alumni Business Meeting.
June 9, Thursday, 8 P. M., ... Commencement Reception.
June 10-30, ... Quarterly Recess.
June 30, Thursday, . . Matriculation and Registration of Students.
July 1, Friday, ... First Term of Summer Quarter begins.
July 1, Friday, 10 A. M., ... Quarterly Convocation.
July 2, Saturday, 8 A. M., . Recitations of Summer Quarter begin.
July 4, Monday, ... Independence Day; a holiday.
Aug. 11, Thursday, ... First Term of Summer Quarter ends.
Aug. 12, Friday, ... Second Term of Summer Quarter begins.
Sept. 19-22, ... Quarterly Examinations.
Sept. 22, Thursday, . . . Second Term of Summer Quarter ends.
Sept. 23-30, ... Quarterly Recess.
Oct. 1, Saturday, ... Fall Quarter begins.
Oct. 1, Saturday, . . . Matriculation and Registration of Students.
Oct. 1, Saturday, 10 A. M., ... Quarterly Convocation.
Oct. 3, Monday, 8 A. M., . . . Recitations of Fall Quarter begin.
Nov. 24, Thursday, ... Thanksgiving Day; a holiday.
Nov. 24, Thursday, 8 P. M., Thanksgiving Reception by the Woman's League.
Dec. 19-22, ... Quarterly Examinations.
Dec. 22, Thursday, ... Fall Quarter ends.
Dec. 23-31, ... Quarterly Recess.

1899.

Jan. 1, Sunday, ... Winter Quarter begins.
Jan. 2, Monday, . . . Matriculation and Registration of Students.
Jan. 2, Monday, 10 A. M., ... Quarterly Convocation.
Jan. 3, Tuesday, 8 A. M., . . Recitations of Winter Quarter begin.
Feb. 22, Wednesday, ... Washington's Birthday; a holiday.
March 20-23, ... Quarterly Examinations.
March 23, Thursday, ... Winter Quarter ends.
March 24-31, ... Quarterly Recess.
April 1, Saturday, ... Spring Quarter begins.
April 1, Saturday, . . Matriculation and Registration of Students.
April 1, Saturday, 10 A. M., ... Quarterly Convocation.
April 3, Monday, 8 A. M., . . Recitations of Spring Quarter begin.
May 30, Tuesday, ... Memorial Day; a holiday.
June 19-22, ... Quarterly Examinations.
June 22, Thursday, ... Spring Quarter ends.

BOARD OF REGENTS.

(Term of Office Began June 1, 1897.)

For Two Years.

JAMES F. BROWN, Charleston. A. H. KUNST, Weston.
RICHARD RANDOLPH McMAHON, Harper's Ferry.

For Four Years.

JAMES M. LEE, Lewisburg. JAMES L. HAMILL, Welch.
JOHN A. CAMPBELL, New Cumberland.

For Six Years.

P. C. EASTHAM, Point Pleasant. W. E. POWELL, Parkersburg.
GEORGE C. STURGISS, Morgantown.

Officers of the Board of Regents.

GEORGE C. STURGISS, *President.*
SAMUEL B. BROWN, *Secretary.*
A. R. WHITEHILL, *Treasurer.*

OFFICERS OF INSTRUCTION

AND

ADMINISTRATION.

THE FACULTY.

JEROME HALL RAYMOND, Ph.D., President of the University, and Professor of Economics and Sociology.

A.B., Northwestern University, 1892; A.M., *ibid.*, 1893; Ph.D., University of Chicago, 1895. Traveling and studying in Europe and Asia, 1890-2; Lecturer in History, and Secretary, Chicago Society for University Extension, and editor of "The University Extension Magazine," 1892-3; Professor of History and Political Science, Lawrence University, 1893-4; Lecturer in Sociology, and Secretary of the Class Study Department, University Extension Division, University of Chicago, 1894-5; Assistant in Sociology, *ibid.*, 1895; Professor of Sociology, and Secretary of the University Extension Department, University of Wisconsin, 1895-7; present position since 1897.

ROBERT ALLEN ARMSTRONG, A.M., Vice-President of the University, and Professor of English Literature.

A.B., West Virginia University, 1886; A.M., *ibid.*, 1889; Principal West Liberty State Normal School, 1886-93; Professor of Mathematics, West Virginia University, 1893-4; Professor of English Literature, *ibid.*, since 1894; Vice-President, *ibid.*, since 1897.

POWELL BENTON REYNOLDS, D.D., Chaplain of the University, and Professor of Philosophy.

A.M., West Virginia University, 1887; D.D., Richmond College, 1890. Student, Richmond College, 1866-70; President Shelton College, 1872-84; President Buckner College, 1884-5; Professor of English, West Virginia University, 1885-9; Vice-President, and Professor of Metaphysics, *ibid.*, 1889-93; Acting President, *ibid.*, 1893-5; Professor of Metaphysics and Political Science, *ibid.*, 1895-7; present position since 1897.

OKEY JOHNSON, LL.B., A.M., Dean of the College of Law, and Professor of Constitutional and International Law and the Law of Corporations.

LL.B., Harvard University, 1858; A.M., Marietta College, 1874. Admitted to the bar, 1858; Attorney-at-law, Middlebourne, 1858-62; Parkersburg, 1862-77; Member West Virginia Senate, 1870-1; Member West Virginia Constitutional Convention, 1872;

Judge of West Virginia Supreme Court of Appeals, 1877-90; President, *ibid.*, 1883-90; Attorney-at-law, Charleston, 1890-5; present position since 1895.

THOMAS CLARK ATKESON, Ph.D., Dean of the College of Agriculture, and Professor of Agriculture.

LL.B., Kentucky University, 1874; Ph.D., Central Normal College, 1893. Student, Kentucky A. and M. College, 1874-6; Agricultural editor and practical and scientific agriculturist since 1876; Professor of Agriculture, West Virginia University, 1891-3; President West Virginia State Board of Agriculture and Farmers' Institute Lecturer, 1891-8; Secretary, Lecturer, Overseer and Master, West Virginia State Grange, 1882-98; President, Barboursville College, 1896-7; present position since 1897.

CHARLES ALFRED ELLENBERGER, Director of the School of Music, and Professor of Music.

Graduate, New England Conservatory of Music, 1884; Gradate student, Boston and New York, 1895-7; Director School of Music, Ripon College, 1884-8; Private teaching, organist, and oratorio and choir director, Knoxville, Tenn., 1888-90; Director School of Music, Tompkinson Seminary, and organist, etc., Harrisburg, Pa., 1890-7; present position since 1897.

WAITMAN BARBE, A.M., Assistant to the President.

B.S., West Virginia University, 1884; M.S., *ibid.*, 1887; A.M., *ibid.*, 1897. City editor "Daily State Journal," Parkersburg, W. Va., 1885-9; Managing editor, *ibid.*, 1889-95; Regent, West Virginia State Normal Schools since 1895; Field Agent, West Virginia University, 1895-8; present position since 1898.

JOHN ISHAM HARVEY, Ph.D., Professor of Modern Languages.

A.B., Richmond College, 1859; A.M., *ibid.*, 1872; Ph.D., West Virginia University, 1890. Graduate student, University of Virginia, 1859-60; Göttingen, Heidelberg, and Paris, 1860-5; Principal Flemington, Ky., High School, 1866-7; Professor, Shelbyville, Ky., Female College, 1868-9; Graves College, 1869-72; Sheldon College, 1872-3; Principal Cleveland, Tenn., Masonic High School, 1873-5; present position since 1875.

ST. GEORGE TUCKER BROOKE, LL.D., Professor of Common and Statute Law.

A.M., West Virginia University, 1889; LL.D., Wake Forest College, 1890. Student University of Virginia Law School, 1867-9; member bar, Charles Town, W. Va., since 1869; present position since 1878.

WILLIAM P. WILLEY, A.M., Professor of Equity Jurisprudence and Commercial Law.

A.B., Dickinson College, 1862; A.M., *ibid.*, 1865; member bar, Morgantown, W. Va., and Baltimore, Md., 1865-78; editor Wheeling "Register," 1878-83; present position since 1883.

ALEXANDER REID WHITEHILL, Ph.D., Professor of Chemistry.

A.B., Princeton University, 1874; A.M., *ibid.*, 1877; Ph.D., Washington and Jefferson College, 1887. Fellow in Experimental Science, Princeton University, 1874-5; Graduate student, University of Leipsic and Freiberg School of Mines, Germany, 1874-5; Professor of Experimental Science, University Mound College, 1876-81; Principal Linsly Institute, 1881-5; present position since 1885.

JAMES WILLIAM HARTIGAN, A.M., M.D., Professor of Biology.

M.D., University of Wooster, 1884; M.D., Bellevue Hospital Medical College, 1887; M.D., Baltimore Medical College, 1887; A.M., West Virginia University, 1888; M.D., Indiana College of Eclectic Medicine, 1888; Graduate in Obstetrics, Newlands College of Midwifery, 1892; Fellow of the Royal Microscopical Society (London, England), 1892; Ambulance Surgeon, Bellevue Hospital, 1886-7; Professor of Anatomy, Physiology and Botany, West Virginia University, 1887-9; Microscopist, West Virginia Agricultural Experiment Station, 1888-9; Surgeon, Corps of Cadets, West Virginia University, since 1889; Instructor in Physical Training, and Director of the Gymnasium, *ibid.*, since 1891; present position since 1889.

JOHN LINDSAY JOHNSTON, C.E., Professor of Civil and Mining Engineering.

B.S., West Virginia University, 1883; M.S., *ibid.*, 1886; C.E., *ibid.*, 1889. Assistant Locating Engineer, W. V. & P. R. R., 1883-5; Draughtsman, C. W. & B. R. R., 1885; Locating and Construction Engineer, W. & C. Natural Gas Company, Pittsburg, 1885-6; Assistant to Division Engineer, B. & O. R. R., 1886; Assistant Engineer, Penna. R. R., 1886-90; Instructor in Engineering, West Virginia University, 1890-1; Professor of Applied Mathematics and Drawing, *ibid.*, 1891-3; present position since 1893.

SAMUEL B. BROWN, A.M., Professor of Geology and Mineralogy.

A.B., West Virginia University, 1883; A.M., *ibid.*, 1886; Graduate student, National Museum, 1884; Harvard University, 1891. Teacher of Languages and Mathematics, Martinsburg, W. Va., 1883-5; Principal Glenville State Normal School, 1885-90; Assistant in Geology, West Virginia University, 1890-2; present position since 1892.

WILLIAM SLEEPER ALDRICH, M.E., Professor of Mechanical Engineering.

Graduate United States Naval Academy, 1883; M.E., Stevens Institute of Technology, 1884; Assistant in Mathematics and Drawing, Boys' High School, Reading, Pa., 1885-7; Assistant in Free Hand and Architectural Drawing and Design, Central Manual Training School, Philadelphia, 1887-9; Graduate student in Mathematics and Electrical Engineering, and Instructor in Drawing, Johns Hopkins University, 1889-91; Associate in Mechanical Engineering, *ibid.*, 1891-2; present position since 1892. Member American Society of Mechanical Engineers.

THOMAS CONDIT MILLER, A.M., Professor of Pedagogy, and Principal of the Preparatory School.

Graduate State Normal School, 1873; A. M., West Virginia University, 1889; Principal Fairmont High School, 1873-4; Student, Adrian College, 1875-7; Superintendent Fairmont Schools, 1877-93; present position since 1893.

JAMES SCOTT STEWART, M.S., Professor of Mathematics.

B.S., West Virginia University, 1877; M.S., *ibid.*, 1880; Assistant in Preparatory School, West Virginia University, 1877-91; Professor of Mathematics, *ibid.*, 1891-3; Superintendent of Schools, Fairmont, W. Va., 1893-4; present position since 1894.

ROBERT WILLIAM DOUTHAT, Ph.D., Professor of the Latin Language and Literature.

A.M., Emory and Henry College, 1874; Ph.D., Roanoke College, 1877; Professor of Languages, Missouri University School of Mines and Metallurgy, 1873-84; President Collegiate Institute (New Mexico), 1884-7; President Collegiate Institute (Arkansas), 1887-9; Professor of Languages, Kentucky Military Institute, 1889-90; President Barboursville College, 1890-5; Professor of Ancient Languages, West Virginia University, 1895-7; present position since 1897.

LEE CLEVELAND CORBETT, M.S., Professor of Horticulture and Forestry, and Horticulturist of the West Virginia Agricultural Experiment Station.

B.S., Cornell University, 1890; M.S., *ibid.*, 1896; Assistant Horticulturist, Cornell University, 1891-2; Professor of Horticulture and Forestry, South Dakota Agricultural College, 1893-5; present position since 1895.

*CHARLES C. HEWITT, Captain, 19th Infantry, U. S. A., Professor of Military Science and Tactics.

Graduate United States Military Academy, 1874; Active service on the frontier, 1874-90; stationed at Detroit, 1890; Captain, 1892; present position since 1895.

BERT HOLMES HITE, M.S., Professor of Agricultural Chemistry, and Chemist of the West Virginia Agricultural Experiment Station.

M.S., West Virginia University, 1890; Graduate student, Johns Hopkins University, 1891-5; Fellow in Chemistry, *ibid.*, 1893-5; Chemist of the West Virginia Agricultural Experiment Station since 1895; Professor of Organic Chemistry, West Virginia University, 1895-7; present position since 1897. Chief Chemist of the Geological and Economic Survey of West Virginia.

THOMAS EDWARD HODGES, A.M., Professor of Physics.

A.B., West Virginia University, 1881; A.M., *ibid.*, 1884; Principal Morgantown Public Schools, 1881-6; Principal and Instructor in

*Absent on sick leave from December 1, 1897, and relieved from the detail on account of ill health, March, 1898.

Natural Science and Pedagogy, Marshall College State Normal School, 1886-96; present position since 1896. President West Virginia Academy of Sciences, Arts and Letters.

ANDREW DELMAR HOPKINS, Ph.D., Professor of Economic Entomology, and Vice-Director and Entomologist of the West Virginia Agricultural Experiment Station.

Ph.D., West Virginia University, 1893; Special Agent in Entomology, West Virginia Agricultural Experiment Station, 1890-1; Entomologist, *ibid.*, since 1891; Professor of Economic Entomology, West Virginia University, since 1896; Vice-Director of the Experiment Station since 1897.

FREDERICK LINCOLN EMORY, B.S., M.M.E., Professor of Mechanics and Applied Mathematics.

B.S., Worcester, Mass., Polytechnic Institute, 1887; M.M.E., Cornell University, 1896; Director Mechanical Department, Washington, D. C., High School, 1887-90; Superintendent Trades Schools, Concord Junction, Mass., 1890-1; Professor of Mechanical Engineering and Mechanic Arts, West Virginia University, 1891-3; Director Indianapolis, Ind., Industrial Training and Technical High School, 1893-5; Graduate Student, Cornell University, 1895-6; present position since 1897. Member American Society of Mechanical Engineers.

LEWIS CASS WOOLERY, A.M., Professor of the Greek Language and Literature.

A.B., Bethany College, 1884; A.M., *ibid.*, 1888; Principal Lafayette Seminary, Higginsville, Mo., 1884-6; Professor of Greek, Bethany College, 1887-93; member bar, Louisville, Ky., 1893-5; Professor of Greek, Drake University, Des Moines, Iowa, 1895-7; present position since 1897.

JOHN ALEXANDER LOCKWOOD, M.S., 1st Lieutenant, 4th Cavalry, U. S. A., Professor of Military Science and Tactics.

Graduate Infantry and Cavalry School, 1883; M.S., Michigan State Agricultural College, 1887; 2d Lieutenant, 17th Infantry, 1880; 1st Lieutenant, 1889; transferred to 4th Cavalry, 1891; Professor of Military Science and Tactics, Michigan State Agricultural College, 1884-7; present position since 1897.

ALFRED JARRETT HARE, A.B., Professor of the Latin Language and Literature.

A.B., West Virginia University, 1889; Assistant in Latin and Mathematics, Preparatory School, West Virginia University, 1889-96; Preparatory Professor of Ancient Languages and Mathematics, *ibid.*, 1896-8; present position since 1898.

FREDERIC WILLIAM SANDERS, Ph.D., Assistant Professor of European History.

A.B., College of the City of New York, 1883; A.M., Harvard University, 1892; Ph.D., University of Chicago, 1895. Private teacher, editor and law student, 1883-7; Counsellor-at-law, New York, 1887; Law practice in New York and Tennessee, 1887-91; Graduate student, Harvard University, 1891-2; Graduate student, Uni-

versity of Chicago, and assistant editor of "Unity," 1893-5; University Fellow, Columbia University, 1895-6; University Extension Lecturer, University of Chicago, 1896-7; present position since 1897.

FREDERICK WILSON TRUSCOTT, Ph.D., Assistant Professor of Germanic Languages and Literatures.

A.B., Indiana University, 1891; Ph.D., Harvard University, 1896 Instructor in German, Indiana University, 1891-3; Assistant in German, Harvard University, 1893-4; Scholar in Modern Languages, *ibid.*, 1894-6; Graduate student, University of Berlin, Germany, 1896-8; elected to present position, 1897, with leave of absence till July 1, 1898.

WILLIAM EARL RUMSEY, B.S.Agr., Instructor in Botany, and Botanist and Assistant Entomologist of the West Virgina Agricultural Experiment Station.

B.S.Agr., Cornell University, 1891; Graduate student, *ibid.*, 1891-3; Assistant Entomologist, West Virginia Agricultural Experiment Station, since 1893; present position since 1896.

DENNIS MARTIN WILLIS, Instructor in Book-keeping and Commercial Practice, and Principal of the Commercial School.

Instructor, Methodist Conference Seminary, Buckhannon, 1891-2; Instructor, West Virginia Business College, 1892-3; Instructor, Northwestern Academy, Clarksburg, 1893-4; Instructor, Central Commercial College, Cumberland, Md., 1894-5; Principal Weston College of Commerce, 1895; present position since 1895.

RICHARD ELLSWORTH FAST, LL.B., Instructor in American History and Political Science.

LL.B., West Virginia University, 1886. Practicing law, 1886-97; student Harvard University, 1897; member West Virginia Senate; present position since 1897.

JAMES PRIMROSE WHYTE, A.B., Instructor in Rhetoric and Elocution.

A.B., University of Chicago, 1895; Student, Brown University, 1892-4; Graduate Student, University of Chicago, 1895-7; Assistant in Public Speaking, *ibid.*, 1896-7; present position since 1897.

ELIZA JANE SKINNER, Library Director, and Instructor in Library Science.

Student, Zurich, Heidelberg and Paris, 1893-5; Librarian, Matson Public Library, Princeton, Ill., 1896; Library School, Armour Institute of Technology, 1896-7; Instructor in Cataloguing, Summer School of Library Science, University of Wisconsin, 1897; present position since 1897.

EVA EMMA HUBBARD, Instructor in Drawing and Painting.

Graduate, Morgantown Female Seminary, 1876; student in Mrs. J. P. Wilkinson's studio, Wheeling 1881-2; Instructor in Drawing and Painting, Wheeling Female College, 1883-4; Student in the Carl Hecker Art School, New York City, 1884-5; Instructor in Fine Arts, Mountain Lake Park Summer Chautauqua, 1885-8;

private studio, Wheeling, 1889-94; Instructor in Drawing and Painting, Mrs. M. Stevens Hart's School for Young Ladies, 1894-7; present position since 1897.

RUSSELL McMURPHY, Instructor on the Piano.

Graduate, New England Conservatory of Music, Boston, 1892; Principal Musical Department, St. Mary's College, Dallas, Texas, 1892-5; Graduate work with Barth in Berlin, 1895-6; principal Music Department, St. Mary's College, 1896-7; present position since 1897.

FRANK WILLIAM KEENE, Instructor on Stringed Instruments.

Student, New England Conservatory of Music, Boston, 1890-4; student, Henry Heindl, 1891-4; Principal Stringed Instruments Department, Kansas Normal School, Emporia, 1894-7; present position since 1897.

CLEMENT ROSS JONES, M.E., Instructor in Mechanical Engineering.

B.S.C.E., West Virginia University, 1894; M.E., *ibid.*, 1897; Associate Principal, West Virginia College, 1894; Professor of Military Science and Mathematics, McKeesport Military College, 1895; Assistant in Mechanical Engineering, West Virginia University, 1895-8; present position since 1898.

RUSSELL LOVE MORRIS, B.S.C.E., Instructor in Civil and Mining Engineering.

B.S.C.E., West Virginia University, 1895; Consulting Engineer, State Board of Agriculture; Draughtsman, West Virginia State Geological and Economic Survey; Assistant in Civil and Mining Engineering, West Virginia University, 1895-8; present position since 1898.

DANIEL JENIFER BARTON, Assistant in Mathematics.

Untitled graduate, University of Virginia, 1891; admitted to the bar, 1891; present position since 1896.

RUFUS WEST, Assistant in Mechanical Engineering.

ELIZABETH LEE WHITESCARVER, Assistant in Shorthand and Typewriting.

GRACE MARTIN, B.M., Assistant on the Piano.

Graduate, Virginia College for Young Ladies, 1893; B.M., *ibid.*, 1894; Instructor in Piano Department, *ibid.*, 1893-4; graduate student, Peabody Institute, Baltimore, 1895-6; present position since 1897.

JOSIAH KEELEY, A.B., Principal of the Preparatory School at Montgomery.

A.B., West Virginia University, 1896; present position since 1897.

RUBY RAY KNIGHT, B.S., Assistant in the Preparatory School at Montgomery.

B.S., Ohio Wesleyan University, 1896; present position since 1896.

LLOYD LOWNDES FRIEND, A.B., Assistant in the Preparatory School at Montgomery.

A.B., West Virginia University, 1897; present position since 1897.

ADDITIONAL INSTRUCTORS FOR THE SUMMER QUARTER, 1898.

ELISHA BENJAMIN ANDREWS, D.D., LL.D., President of Brown University, Providence, R. I.

NATHANIEL BUTLER, D.D., President of Colby University, Waterville, Me.

A.B., Colby University, 1873; A.M., *ibid.*, 1876; D.D., *ibid.*, 1895.

LESTER F. WARD, LL.D., Smithsonian Institution, Washington, D. C.

A.B., Columbian University, 1869; LL.B., *ibid.*, 1871; A.M., 1873, and LL.D., 1897.

BURKE AARON HINSDALE, Ph.D., LL.D., Professor of the Science and Art of Teaching, University of Michigan, Ann Arbor, Mich.

A.M., Bethany College; A.M., Williams College; Ph.D., Ohio State University; LL.D., Ohio University. President of Hiram College, 1870-82; Superintendent of Cleveland, Ohio, Public Schools, 1882-6; present position since 1888. President National Council of Education.

ALBERT E. WINSHIP, Ph.D., Editor of the "Journal of Education," Boston, Mass.

JANE ADDAMS, Head Resident of Hull House Social Settlement, Chicago, Ill.

JAMES HENRY HAMILTON, LL.B., Ph.D., Professor of Political Economy, Syracuse University, Syracuse, N. Y.

B.S., Hanover College, 1885; LL.B., University of Cincinnati, 1887; A.M., Indiana University, 1894; Ph.D., University of Wisconsin, 1896; Graduate student, Universities of Halle and Berlin, Germany, 1894-5; present position since 1896.

ROBERT IRVING FULTON, A.M., Professor of Elocution and Oratory, Ohio State University, Columbus, Ohio, and Ohio Wesleyan University, Delaware, Ohio.

A.M., Ohio Wesleyan University, 1887; Law student, University of Virginia, 1877; Superintendent Public Schools, Berlin, Ill., 1877-8; Associate Principal School of Oratory, Kansas City, Mo., 1878-81; Director, *ibid.*, 1884-92; Instructor in Elocution, Ohio Wesleyan, Missouri State, and Kentucky State Universities, 1882-90; Assistant Professor of English, Kansas State University, 1890-1; Professor of Elocution and Oratory, Ohio Wesleyan University, since 1891; Lecturer in Elocution and Oratory, Ohio State University, 1892-5; Professor, *ibid.*, since 1895.

CHARLES EDMUND NEIL, A.M., Professor of Elocution and Oratory, Denison University, Granville, Ohio, and Assistant in Elocution and Oratory, Ohio Wesleyan University, Delaware, Ohio.

A.B., McKendree College, 1895; A.B. and A.M., Ohio Wesleyan University, 1897. Instructor in Elocution and Oratory, Ohio Wesleyan University, 1896-7; Assistant Professor, *ibid.*, and Professor of Elocution and Oratory, Denison University, since 1897.

CHARLES ZUEBLIN, Ph.B., B.D., Associate Professor of Sociology, University of Chicago, Chicago, Ill.

Ph.B., Northwestern University, 1887; B.D., Yale University, 1889. Graduate student, University of Leipsic, Germany, 1889-91; Secretary Chicago Societv for University Extension, 1892; Secretary of Class Work, University Extension Division, University of Chicago, 1892-3; Secretary, Lecture Study Department, *ibid.*, 1894; University Extension Instructor in Sociology, *ibid.*, 1892-5; Assistant Professor, *ibid.*, 1895-6; present position since 1896.

RICHARD CLYDE FORD, Ph.M., Assistant Professor of Modern Languages, Albion College, Albion, Mich.

Ph.B., Albion College, 1894; Ph.M., *ibid.*, 1897; Principal Public Schools, White Cloud, Mich., 1888-9; Master Anglo-Chinese College, Singapore, East Indies, 1891-2; Student, University of Berlin, Germany, 1894; present position since 1894.

KENNETH McKENZIE, Ph.D., Instructor in Modern Languages, Union College, Schenectady, N. Y.

A.B., Harvard University, 1891; Ph.D., *ibid.*, 1895; abroad, 1891-2; present position since 1895.

ERNEST BRYANT HOAG, B.S., A.B., Instructor in Biology, Throop Polytechnic Institute, Pasadena, Cal.

B.S., Northwestern University, 1892; A.B., Leland Stanford University, 1894. Graduate student and University Extension Lecturer in Biology, University of Chicago, 1894-5; present position since 1895.

ERNEST IRVING ANTRIM, Ph.D., Lecturer in English Literature.

A.B., DePauw University, 1889; A.M., Boston University, 1890; Ph.D., Göttingen University, Germany, 1897. Instructor in Greek and English, Belmont College and Ohio Military Institute, 1890-2; Instructor in English, Boston University, 1892-3; Professor of English, University of Wyoming, 1893-4; Graduate student in Germany, 1894-7.

WILLIAM ALEXANDER READ, Ph.D., Lecturer in English Literature.

A.B., King College, 1888; Ph.D., University of Heidelberg, Germany, 1897. Graduate student, Universitv of Virginia, 1892-4; University of Göttingen, 1894-5; University of Heidelberg, 1895-7; Instructor in English and Latin, Southwest Virginia Institute, 1897.

OTHER OFFICERS.

ALBERT COLLETT, Secretary to the President.

ELLA ELIZABETH EGBERT, Secretary to the President.

CLARA HOUGH, Librarian.

ANNA BANCROFT WHITE, B.S., Assistant in the Library.
B.S., West Virginia University, 1895.

FRANCIS ALOYSIOUS HAUBER, B.S., Assistant in the Library.
B.S., Villanova College, 1897.

HENRY ST. CLAIR, Armorer.

AGRICULTURAL EXPERIMENT STATION STAFF.

JAMES HENRY STEWART, A.M., Director and Agriculturist.

ANDREW DELMAR HOPKINS, Ph.D., Vice-Director and Entomologist.

BERT HOLMES HITE, M.S., Chemist.

LEE CLEVELAND CORBETT, M.S., Horticulturist.

WILLIAM EARL RUMSEY, B.S.Agr., Botanist and Assistant Entomologist.

THEODORE F. WATSON, B.S., Assistant Chemist.

HORACE ATWOOD, B.S., Assistant Agriculturist.

GEORGE HENRY AUGUSTUS KUNST, A.B., LL.B., Librarian.

MARTHA ELIZABETH HEERMANS, Stenographer.

WEST VIRGINIA UNIVERSITY.

Organization.

The University organization consists of the following colleges, schools, and departments:

I. The College of Arts and Sciences.
II. The College of Engineering and Mechanic Arts.
III. The College of Agriculture.
IV. The College of Law.
V. The School of Music.
VI. The Commercial School.
VII. The Preparatory Schools.
VIII. The Department of Elocution and Public Speaking.
IX. The Department of Drawing and Painting.
X. The Department of Instruction by Correspondence.
XI. The Military Department.
XII. The Department of Physical Training.

I. The College of Arts and Sciences offers:

(a) Undergraduate courses as follows:

1. The Classical Course, leading to the degree of Bachelor of Arts (A.B.).
2. The Scientific Course, leading to the degree of Bachelor of Science (B.S.).
3. The Philosophical Course, leading to the degree of Bachelor of Philosophy (Ph.B.).
4. The Modern Literature Course, leading to the degree of Bachelor of Letters (B.L.).
5. The Premedical Course, which does not lead to any degree, but admits to advanced standing in leading medical colleges.

(b) Graduate courses leading to the following degrees:

1. Master of Arts (A.M.).
2. Master of Science (M.S.).
3. Master of Philosophy (Ph.M.).
4. Master of Letters (M.L.).

II. The College of Engineering and Mechanic Arts offers:

(a) Undergraduate courses as follows:

1. The four year course in Civil Engineering, leading to the degree of Bachelor of Science in Civil Engineering (B.S.C.E.).
2. The four year course in Mechanical Engineering, leading to the degree of Bachelor of Science in Mechanical Engineering (B.S.M.E.).

3. The two year certificate Mechanical Course.
4. The two year certificate Electrical Course.
5. The one year Manual Training Course.
6. Special Courses in:
    (1) Land Surveying.
    (2) Mining Engineering.
    (3) Railroad Engineering.

(b) Graduate courses leading to the following degrees:
1. Civil Engineer (C.E.).
2. Mechanical Engineer (M.E.).

III. The College of Agriculture offers:
1. The four year course leading to the degree of Bachelor of Science in Agriculture (B.S.Agr.).
2. The two year course leading to the degree of Bachelor of Agriculture (B.Agr.).
3. The one year certificate course.
4. The twelve weeks special courses.

IV. The College of Law offers:
1. The four year course leading to the degree of Bachelor of Laws (LL.B.).
2. The two year certificate course.

The University Year.

Beginning July 1, 1898, the University will virtually be in continuous session, the three months' vacation in summer having been abolished, so far as the University itself is concerned. The University year will hereafter be divided into four quarters, of twelve weeks each, with recesses of one week between quarters. No student or instructor is expected to work at the University more than nine months out of twelve, unless he desires to do so. Under this system a student may begin his work at the beginning of any quarter, and may take his vacation either during the summer quarter, or during the fall, winter or spring quarter. He is, however, at liberty to continue his University work during all four quarters, if he is strong enough, and desires to do so. Similarly, an instructor may arrange to take his vacation in any quarter of the year, provided arrangements can be made in regard to the instruction in his department. The courses of instruction are arranged so that the work of each quarter is complete in itself. The classes in most subjects will meet five times a week, enabling many topics to be covered in single quarters, and many more new classes to begin with each quarter than is possible under any other system. Courses for which there is great demand are given more than once in the same year, so that any student in attendance during that year may have the opportunity of taking them, in whatever quarter or quarters he takes his vacation.

The summer quarter will be especially attractive to teachers. Detailed announcements for the summer quarter are given on subsequent pages.

The four quarters of the University year will begin July 1, October 1, January 1, and April 1. Each quarter will be divided into two terms of six weeks each.

Origin and Location.

In 1814 the Legislature of Virginia passed an act incorporating the Monongalia Academy, and locating it at Morgantown. The first building was a one-story brick structure, divided into two rooms. In 1828 this building was sold and a two-story brick building erected. As a further endowment, the Virginia Legislature passed an act authorizing the trustees of the Academy to raise twenty thousand dollars by a lottery, and the drawings for this lottery were conducted January 26, 1832. In later years the Monongalia Academy became an institution of wide reputation, drawing students at one time from fourteen states. For more than fifty years it was the leading school in Virginia west of the mountains.

On July 2, 1862, Congress passed an act donating public lands to the several states to establish "colleges for the benefit of Agriculture and the Mechanic Arts." In 1864 this act was extended to the new state of West Virginia, and in 1867 the West Virginia Agricultural College was founded. The trustees of the Monongalia Academy gave to the state all of the real estate and personal effects of the Academy. The building and grounds of Woodburn Seminary, a school for girls in Morgantown, were also donated, and the new College succeeded the old academy and seminary, inheriting an honorable record and much good will. The first faculty meeting was held August 20, 1867, and on September 2 of that year the school was formally opened. In 1868 the name of the new institution was changed by act of the legislature to the West Virginia University.

Morgantown, the seat of the University, is the county seat of Monongalia county, and is a beautiful little town of twenty-five hundred inhabitants, on the Monongahela river and the Baltimore and Ohio Railroad, 103 miles east of Wheeling, and the same distance south of Pittsburg. It has the modern conveniences of natural gas, waterworks, electric lights, and local and long-distance telephones, and is noted for its healthful conditions, physical, social and moral. There are churches of the following denominations in the town: Presbyterian, Methodist Episcopal, Methodist Protestant, Baptist, Protestant Episcopal, Lutheran, and Roman Catholic. There are no saloons in Morgantown.

Few institutions of learning have more attractive natural sites. The University grounds border the Monongahela river, and afford a

most picturesque outlook. The campus comprises about twenty-five acres, a tract of seven and a half acres having been added this year. The University also has a farm of about one hundred acres for the use of the Agricultural Experiment Station and the College of Agriculture.

Funds.

The funds for maintaining the University are derived from the following sources: (1) Interest on the land grant endowment of $114,750; (2) the Morrill fund; (3) the Hatch fund; (4) biennial appropriations by the State Legislature; (5) fees and tuitions, the latter being paid only by students from other States.

Buildings.

There are seven main brick buildings, as follows:

1. University Hall, a four-story building, containing lecture rooms and the biological laboratory. A large right wing to this building is now being constructed.

2. Preparatory Hall, a three-story building, containing lecture rooms, the Library, and society halls.

3. Science Hall, a four-story building, containing lecture rooms and laboratories for the departments of Physics, Chemistry, Geology, Civil Engineering, and Drawing and Painting, and also the President's office.

4. Mechanical Hall, a two-story building, containing shops, machinery, and other appliances for instruction in Mechanical Engineering and Mechanic Arts.

5. Commencement Hall, a large two-story building, containing a commodious chapel with 1500 seats, and the gymnasium.

6. Agricultural Experiment Station, a two-story building, containing laboratories, lecture rooms, and offices.

7. Music Building, a two-story building, containing rooms and instruments for the School of Music.

The lecture rooms are crowded, and there is pressing need for additional buildings.

Departmental Equipments.

Physics.

The department of Physics has its lecture room and laboratories in Science Hall. During the past year a large room on the basement floor of this building has been fitted up as a laboratory and equipped with apparatus for individual experimental work. Work of this character is required of students in every regular course given in the department.

The apparatus for electrical measurements and test work is especially well selected and of superior quality. Students in electrical subjects have opportunity to become familiar with the use of the latest and most inproved forms of apparatus for measurement of current, resistance, electromotive force, quantity, capacity, induction, etc.

The lecture table equipment is also quite extensive. The laboratory is open for the use of students every afternoon except Saturday. All laboratory work is under the personal supervision of the instructor.

Chemistry.

The rooms assigned to this department are located on the second floor of Science Hall, and consist of a lecture room and two large laboratories. Connected with these are a dark room, a weighing room, and a preparation room. The laboratories afford working space for fifty students at a time, and are abundantly supplied with water and gas and the chemicals and apparatus necessary for practical work. This apparatus includes a large number of pieces used in illustrating the elementary principles of the science, as well as many of the more expensive instruments used in analytical work. An excellent collection of the latest text and reference books is kept within easy reach of the students, and the aim has been to make the laboratory outfit as complete and ample as possible.

Geology.

The equipment for purposes of illustrative teaching in this subject consists of many thousands of fossils, casts and models, a good collection of minerals, specimens of all of the important building stones, Ward's College Collection in Palæontology, showing the advancement

from the early forms of life to those of the present time. The University is situated in the midst of a great coal producing region, and within five miles of the western fold of the Appalachian mountains, and oil and gas wells are but a short distance away. The natural facilities, therefore, for the study of Geology are unsurpassed.

Biology.

The Biological department is supplied with compound microscopes of the Zeiss pattern. These instruments are recognized by microscopists as the best, and were specially imported from Germany for this department. Its equipment also includes a projection microscope, large freezing and small microtomes, numerous charts, manikins, models, specially prepared human and comparative anatomical preparations; plant and animal histological preparations; abundant material for the study of human and comparative osteology, vivisection and physiological chemistry apparatus; a complete bacteriological outfit with accessories for microscopical photography and air analysis, a Hesse air tester, various physiological apparatus, including a sphygmograph, a haemarumascope, a centrifuge, a spirometer, a large eudiometer, and an Edison X-ray machine, known as the "Edison instantaneous air-brake-wheel apparatus," with a fluoroscope and dark room, including everything necessary for practical work with this piece of apparatus.

Entomology.

The equipment of the Entomological department consists of a collection of over 20,000 specimens and over 7,000 separate notes on original observations taken in West Virginia by the Entomologist. The apparatus for collecting, breeding, mounting, preserving and studying specimens is complete. The microscopic outfit is sufficiently perfect for carrying on any class of study in this line. The photographic department is thoroughly equipped for the requirements of entomological and other work.

Botany.

The collections and equipments of the Botanical department offer superior facilities for the study of economic botany, and the practical features of systematic botany in its relation to agricultural pursuits, containing, as it does, a large series of West Virginia plants, and a special collection of economic plants, weeds and diseased plants; also an excellent outfit for the study of plant diseases.

Civil Engineering.

The material equipment of this department consists of the civil engineering laboratory, equipped with a collection of apparatus and instruments for instruction in engineering believed to be complete and modern, consisting of transits, levels, theodolites, surveyors' compasses, aneroid barometers, plane table, solar compass, sextant clinometers, odometer, pendometers, telemeters, prismatic compass, hand levels, a full collection of drawing instruments, blue printing outfit, complete set of United States standard weights and measures, testing machines for testing strength of materials, as wood, iron, steel, stone, cement, mortar, etc.; a drawing room containing a large number of descriptive geometry models, and models of bridges, furnaces and many other structures, and a large number of wood and plaster paris casts and models pertaining to descriptive geometry, architecture, etc. The equipment of the department of Physics, described above, is of great value to students in the Engineering courses.

Mechanical Engineering.

Practical instruction in Mechanical Engineering and the Mechanic Arts is provided for in the equipment of Mechanical Hall. Standard measures and calculating instruments, laboratory appliances and apparatus are provided for qualitative and quantitative experimental work in engineering.

The electric light and power plant of the University is located in the basement of Mechanical Hall. The boilers, triple-expansion engine, condensers, and electrical machinery, as well as the motive-power machinery of the shop, have been specially selected and arranged for experimental work in Mechanical and Electrical Engineering. In the drawing room, models of the typical valve-gears are used for instruction. Samples of raw materials and of manufactured products are collected, forming the nucleus of an engineering museum. Such machine tools and workshop appliances for working wood and metal, as well as small tools, stock and material, are supplied as will enable the work of instruction to be carried on efficiently in the Mechanic Arts.

Commercial School.

The Commercial School has recently been fitted out with the latest improved modern commercial school furniture, including three new banking counters and office desks, and a complete equipment for the most extensive business practice. Ten new Smith Premier typewriters have been added to the typewriting department for the use of students.

Gymnasium.

The Gymnasium includes all of the first story of Commencement Hall, and is well furnished with Indian clubs, dumb-bells, wands, vaulting, horizontal, traveling and parallel bars; finger, wrist and hand machines; flying rings, chart and intercostal machines, quarter circle, sculling and rowing machines, adjustable ladder, climbing ladder, rosary, plain rope trapeze, traveling rings, striking bags and drum, boxing gloves, hammer and shot, heavy bells, medicine ball, manometer, lockers, large plunge bath and shower baths, horse, batteau boards, take stands, and basket ball outfit.

Athletics.

Besides the regular military drill, physical training exercises and gymnasium instruction, sufficient attention is given to field sports, such as foot-ball, base-ball, track contests, etc.

All field sports are under the control of Professor Thomas E. Hodges, Director of Field Athletics. The West Virginia University Athletic Association has been organized and chartered for the purpose of developing the athletic interests of the University.

The athletic ground, adjoining Commencement Hall, is well adapted to out-of-door sports.

While athletics are given all proper encouragement, they are not permitted to interfere with the regular work of the students.

Young women have the same advantages in the Gymnasium as young men, certain hours being reserved for them, and regular classes being formed exclusively for them.

Societies.

The literary, scientific, religious and other societies of the University are the following:

1. The Columbian Literary Society. Regular meetings every Friday night in its own hall in the Preparatory Building. Membership open to all students of the University.

2. The Parthenon Literary Society. Regular meetings every Friday night in its own hall in Preparatory Building. Membership open to all students of the University.

3. The Engineering Society. Regular meetings the first and third Friday nights of each month in room 14, Science Hall. Membership open to all students in the College of Engineering and Mechanic Arts.

4. The Agricultural Society. Regular meetings every Thursday night in the lecture room of the Experiment Station. Membership open to all students in the College of Agriculture.

5. The Hartigan Anatomical Society. Regular meetings every Friday night in room 30, University Hall. Membership open to all students in Anatomy and allied subjects.

6. The West Virginia Academy of Sciences, Arts, and Letters. Regular meetings the first Tuesday night of every month in the lecture room of the Experiment Station. Membership open to students and instructors of the University, and such others as may be elected.

7. The Young Men's Christian Association. Regular meetings at 6.30 P. M. every Friday in its own hall in Preparatory Building. Membership open to all young men in the University.

8. The Woman's League, organized to encourage the attendance of women at the University, and to promote the special interests of the women students socially and intellectually. Regular literary meetings the third Saturday of each month at 3 P. M. Regular social receptions the first Saturday of each month at 3 P. M. Active membership open to all women in the University.

9. The Choral Society. Regular meetings every Tuesday at 7.30 P. M. in Commencement Hall. Membership open to all students in the School of Music and all others interested.

10. The Dramatic Club, organized under the direction of the Instructor in Elocution, for the purpose of studying and presenting standard plays of high literary merit. Membership open to all persons interested.

11. The Athletic Association, organized for the purpose of encouraging and developing the athletic interests of the University. Incorporated under the laws of West Virginia. Membership open to all students of the University.

12. The Students' Lecture Association, organized for the purpose of providing each year an attractive series of popular lectures.

Theses.

After July 1, 1898, every candidate for a degree will be required to present an acceptable thesis before the degree will be conferred. The thesis will count as one full course. Each student will elect the department of study in which he will write his thesis, and will select the subject of the thesis in conference with the head of that department. The subject of the thesis and the thesis itself must be approved by the head of the department in which the student elects to write his thesis.

Theses must be typewritten with black non-copying record ink on Crane's Japanese linen paper, of quality 24 lbs. to the ream, folio size. This paper, of right quality and correct size, viz., 8x10 inches, may be obtained at the University book room, or at any bookstore in Morgantown. A margin of one and one-fourth inches must be left at the left edge of each sheet, and a margin of three-fourths of an inch on the other edges. The title page should follow, *mutatis mutandis*, the sample title page on the bulletin board in the Library.

When the thesis is typewritten and ready for binding, the student will secure the written approval of the professor under whose direction the thesis has been prepared. This approval is to be written on a blank sheet accompanying the thesis, and must be obtained before the thesis is delivered at the Library.

All theses must be delivered to the University Librarian not later than three weeks before the degree is conferred. The theses will be bound uniformly, and remain permanently in the University Library. The cost of binding each thesis is sixty cents, and this sum must be handed to the Librarian when the thesis is delivered at the Library.

For the year 1897-98 the above requirements will apply only to candidates for master's and engineering degrees. Any candidate for any other degree, however, may elect to write a thesis under these conditions for the year 1897-98, and if the thesis is accepted it will be credited as a five hours' study for one quarter.

Prizes.

The following prizes are open to students in various departments of the University. No successful contestant may become a second time a competitor for the same prize.

I. THE WILES PRIZE IN ORATORY.

A prize of one hundred dollars, the gift of Mr. John W. Wiles, A.B., of the class of 1894, will be awarded each year to the member of the graduating class, in any of the regular four year courses, who excels in original oratory. The conditions on which the award will be made are as follows:

1. All members of the graduating class who wish to take part in the contest shall hand their names to the President of the University not later than the first Monday in February.

2. If not more than five members of the class wish to contest there will be no preliminary contest.

3. If more than five members of the class wish to contest there will be a public preliminary contest on the evening of the third Friday in April.

4. For this preliminary contest the judges shall be the President of the Board of Regents, the President of the University, and the Vice-President of the University.

5. These judges shall select for the final contest the five speakers who, in their judgment, shall excel.

6. No oration on either preliminary or final contest shall be more than twenty minutes long.

7. The judges shall grade each oration on a scale of five for thought and composition, and five for delivery.

8. For the final contest the President of the University shall select three judges who are not connected with the University, and, if possible, non-residents of West Virginia, and of different professions.

9. There shall be no conference between the judges after either preliminary or final contest. Each judge shall be waited upon after the contest by a committee chosen by the contestants. This committee shall average the grades of the judges, and from these grades make up the final result.

10. The contestants who are selected for the final contest may present for the final contest either the same oration they presented in the preliminary contest, or a new one.

11. All contestants in both preliminary and final contests shall submit typewritten copies of their orations to the judges on the preliminary contest at least one week before the preliminary contest, and two weeks before the final contest.

12. The places of the contestants on the program shall be decided by lot.

II. THE WOMAN'S LEAGUE PRIZE IN DECLAMATION.

Two prizes, the first of one hundred dollars, and the second of sixty dollars, will be awarded each year by the Woman's League of the University, respectively to the woman student in any department who excels in declamation and to the next in order of merit. The conditions on which the award will be made are as follows:

1. All women students in the University who wish to take part in the contest shall hand their names to the president of the Woman's League not later than the first Monday in February.

2. If not more than nine wish to contest, there will be no preliminary contest.

3. If more than nine students wish to contest, there will be a preliminary contest on the first Friday in March.

4. At this preliminary contest there shall be present only the three judges who shall be selected by the Woman's League.

5. The judges shall select for the final contest the nine speakers who, in their judgment, shall excel in declamation.

6. The final contest shall be held on the Monday evening of Commencement week.

7. For the final contest three judges shall be selected by the Woman's League.

8. The contestants who are selected for the final contest may present on the final contest either the same declamation they presented in the preliminary contest, or a new one.

III. THE INTER-SOCIETY PRIZES.

Prizes aggregating one hundred dollars are awarded by the Board of Regents of the University to the literary society whose rep-

resentatives excel in declamation, original oratory, essay writing, and debate. The prizes are as follows :

To the successful debater, forty dollars.

To the successful orator, thirty dollars.

To the successful essayist, twenty dollars.

To the successful declaimer, ten dollars.

The conditions on which the awards are made are as follows:

1. At the last regular meeting in the fall quarter the Parthenon and Columbian Literary Societies shall each select a debater, an orator, an essayist, and a declaimer. These contestants may be any undergraduate members of the societies.

2. The declamations shall not exceed eight minutes in length. The debaters shall not speak longer than twenty minutes each. The essays shall not contain more than 1600 words each. The orations shall not contain more than 1800 words.

3. The President and Vice-President of the University shall select for the contest three judges who have never been members of either society.

4. Each contestant shall submit his declamation, essay, oration, or brief of his debate to the President of the University not later than two weeks before the contest.

5. The arrangements for the contest shall be made by an inter-society committee composed of three members appointed by each society, together with the President of the University.

6. The contest shall take place Tuesday evening of Commencement week.

IV. THE EDWARD THOMPSON COMPANY PRIZE IN LAW.

A prize of "The American and English Encyclopædia of Law," value one hundred dollars, will be awarded annually by the Edward Thompson Company to the student in the senior class of the College of Law who shall write the best essay on a subject selected by the faculty of the College of Law. The subject for 1897-98 is: "Is there any Truth in the Charge that Ours is a Government by Injunction? If so, how much?" The subject for 1898-99 is: "The Origin and Development of Corporations."

The conditions under which this prize is awarded are stated below.

V. THE REGENTS' PRIZE IN COMPOSITION.

A prize of twenty-five dollars is awarded annually by the Board of Regents of the University to the student in any of the regular college courses who shall write the best essay on a topic selected by a committee of the faculty. The subject for the year 1897-98 is: "Better Educational Facilities for West Virginia." The subject for the year 1898-99 will be: "Is a National Income Tax Desirable?"

The conditions on which this prize is awarded are stated below.

VI. THE ARMSTRONG PRIZE IN ENGLISH LITERATURE.

A prize of twenty-five dollars, the gift of Professor Robert Allen Armstrong, A.M., of the class of 1886, will be awarded annually to the student who shall write the best essay on an assigned topic in English Literature. This prize will not be awarded to any student who has not had at least five full college courses in English. The subject assigned for the year 1898-99 is: "The Influence of Tennyson on his Age." The subject for 1899-1900 will be: "The Mission of Robert Browning."

The conditions on which this prize is awarded are stated below.

VII. THE ARMSTRONG PRIZE IN AMERICAN LITERATURE.

A prize of twenty-five dollars, also the gift of Professor Armstrong, will be awarded annually, under the same conditions as the Armstrong Prize in English Literature, to the writer of the best essay on an assigned subject in American Literature. The subject for the year 1898-99 will be: "Nature in American Poetry." The subject for the year 1899-1900 will be: "The Genius and Art of Nathaniel Hawthorne."

The conditions on which this prize is awarded are stated below.

VIII. THE McMAHON PRIZE IN ENGLISH LITERATURE.

A prize of twenty-five dollars, the gift of Hon. Richard Randolph McMahon, a Regent of the University, will be awarded to the member of the graduating class, in any of the regular four year courses, who shall write the best essay on an assigned topic in English Literature. The subject assigned for the year 1897-98 is: "What was Shakespeare's Religion?"

CONDITIONS OF AWARDING ESSAY PRIZES:

The conditions on which the Edward Thompson Company Prize in Law, the Regents' Prize in Composition, the Armstrong Prize in English Literature, the Armstrong Prize in American Literature, and the McMahon Prize in English Literature, are awarded, are as follows:

1. No limit is set to the length of the essays submitted in competition for these prizes.

2. All essays must be typewritten with black non-copying record ink, on Crane's Japanese linen paper, of quality twenty-four pounds to the ream, folio size. This paper, of right quality and size, viz., 8x10 inches, may be obtained at the University book room, or at any bookstore in Morgantown. A margin of one and one-fourth inches must be left at the left edge of each sheet, and the margin must be three-

fourths of an inch on the other edges. The title page will follow, *mutatis mutandis,* the sample title page on the bulletin board in the library.

3. On the title page of each essay must be written an assumed name, and under cover with the essay must be sent a sealed letter containing the true name of the writer and superscribed with his assumed name.

4. The copies of all essays submitted for these prizes become the property of the University Library, and the essay which receives a prize shall have endorsed upon it a certificate of that fact.

5. The essays submitted for these prizes must be deposited not later than the third Saturday in May with the President of the University, who will appoint three judges for each prize, and the prize will be awarded to the writer of the essay declared by two of the judges to be the best.

6. The decision of the judges will be announced by the President of the University at Commencement.

IX. THE McMAHON PRIZE IN MILITARY TACTICS.

A prize of twenty-five dollars, the gift of Hon. Richard Randolph McMahon, a Regent of the University, will be awarded to the member of the Cadet Corps who shall show greatest proficiency in military drill. The name of the winner of the prize will be announced at Commencement. The conditions under which the award is made are as follows:

1. Any cadet, not a commissioned officer, shall be eligible to compete, provided his record for attendance and discipline during the year is 85 per cent. or higher.

2. The competition shall be in infantry drill, or in artillery drill, including saber drill.

3. The judges shall be a committee of three, chosen by the cadet officers of the Corps, and the judges shall arrange the details of the competition.

X. THE McMAHON PRIZE IN LAW.

A prize of twenty-five dollars, the gift of Hon. Richard Randolph McMahon, a Regent of the University, will be awarded to the student in the College of Law who makes the best general average for the year. The name of the winner of this prize will be announced at Commencement.

XI. THE McMAHON PRIZE IN MUSIC.

A prize of twenty-five dollars, the gift of Hon. Richard Randolph McMahon, a Regent of the University, will be awarded to the student

in the School of Music who makes the most progress during the year. The name of the winner of this prize will be announced at Commencement.

XII. THE REGENTS' PRIZES IN DECLAMATION.

The Board of Regents of the University annually award to the student in the Preparatory School who excels in declamation, a prize of fifteen dollars, and prizes of ten dollars and five dollars respectively to the contestants who rank second and third. The conditions under which the awards are made are as follows:

1. Students in the Preparatory School who desire to compete shall hand their names to the Principal of the Preparatory School not later than April 1.

2. If not more than nine students desire to compete there will be no preliminary contest, but if more than nine desire to contest, the Principal of the Preparatory School will arrange for a preliminary contest to select the nine who shall excel in declamation, and these nine shall take part in the final contest.

3. The final contest will be held on the Saturday evening preceding Commencement.

4. The judges of this contest shall be selected by the Principal of the Preparatory School.

XIII. THE WOMAN'S LEAGUE PRIZES IN COMPOSITION.

Prizes aggregating thirty-five dollars are awarded annually by the Woman's League of the University to the women students in any department of the University who shall excel in composition. The prizes are as follows:

To the woman who writes the best poem, ten dollars.

To the woman who writes the second best poem, five dollars.

To the woman who writes the best short story, ten dollars.

To the woman who writes the best prose article on a subject assigned by the Woman's League, ten dollars. The subject assigned for the year 1897-8 is: "The Need for a Woman's Hall at West Virginia University." For 1898-9 the subject is: "Does it Pay to Give a Girl a College Education?"

The conditions under which these prizes ar given are as follows:

1. The length of the poem is left to the discretion of the writer.

2. The story shall not contain more than thirty-five hundred words.

3. The prose article shall not contain more than twenty-five hundred words.

4. All compositions must be handed to the editor-in-chief of the Woman's League Annual before May 1, and must be typewritten, signed with an assumed name, and accompanied by a sealed letter containing the true name and superscribed with the assumed name.

XIV. THE THOMPSON PRIZE IN ENGLISH.

A prize of ten dollars, the gift of Rev. James O. Thompson, of Keyser, W. Va., the editor of the "Mountain Echo," will be awarded annually to the college student who makes the most progress during the year in English Composition and Rhetoric. The committee of award will consist of the President of the University, the Professor of English, and the Instructor in Rhetoric. The award will be announced at Commencement.

Fellowships.

Subject to the approval of the Board of Regents at its meeting in June, 1898, the Executive Committee has established twelve University Fellowships, one each in the departments of Chemistry, Physics, Botany, Zoölogy, Geology, Mathematics, Mechanical Engineering, Agriculture, Civil Engineering, Economics, English, and Greek. These fellowships are established for the purpose of encouraging advanced study and promoting higher scholarship. The regulations governing them are as follows:

1. Each Fellow will be paid $300 annually, and will be excused from the payment of all University fees.

2. The Fellowships will be awarded by the President of the University to candidates for advanced degrees who are graduates of West Virginia University, or other institutions of recognized standing.

3. All Fellowships will be filled each year. Fellows may be reappointed for one additional year only.

4. Candidates for Fellowships will send their applications to the President of the University with evidences of merit, attainments, and ability, not later than June 1 each year. The appointments will be announced at Commencement.

5. Applications must be accompanied by evidences of scholarship, ability, and general worthiness, such as theses (whether prepared for this or other purposes), published writings, testimonials from instructors, outline of educational course pursued, special distinctions gained, and the like. Applications for reappointment should contain a full account of the work of the preceding year. Applications to receive attention must contain a definite statement of the special studies which the applicant intends to pursue.

6. Each Fellow will pursue his studies under the direction of the professor or professors in charge of his special studies. Assignment of University services to the Fellows will be made by the President in consultation with the head of the department to which the Fellow has been assigned. The work assigned will be equivalent to one hour of teaching daily, or the supervision of laboratory work for one laboratory period daily.

Discipline.

The rules and regulations which students are required to observe are few, simple and reasonable,—punctuality and regularity in attendance upon all required exercises; reasonable diligence in the performance of the work prescribed; abstinence from drinking, gambling and like gross vices; and civil, orderly conduct generally.

Students who cannot, or will not, comply with these requirements will not be allowed to remain in the University.

The disciplinary committee consists of the President of the University, the Professor of Military Science and Tactics, and the Dean of the College of Agriculture. This committee has entire charge of all matters of discipline in the University.

Class Officers.

Upon entering the University, each student is assigned by the President to some professor who acts as his class officer, counsels and guides him in all matters pertaining to his studies, and reports his progress at the end of each quarter to his parent or guardian. The class officer acts as the adviser and personal friend of the students assigned to him, and endeavors to further their best interests in every possible way. All promotions are determined by the class officers. The list of class officers at present is as follows:

First year Preparatory students, Mr. Barton.
Second year Preparatory students, Professor Hare.
Third year Preparatory students, Professor Miller.
Classical Freshmen, Professor Woolery.
Classical Sophomores, Professor Harvey.
Classical Juniors, Professor Armstrong.
Classical Seniors, Professor Reynolds.
Scientific Freshmen, Professor Hodges.
Scientific Sophomores, Professor Stewart.
Scientific Juniors, Professor Emory.
Scientific Seniors, Professor Brown.
Philosophical students, Professor Douthat.
Modern Literature students, Assistant Professor Sanders.
Premedical students, Professor Hartigan.
Mechanical Engineering students, Professor Aldrich.
Civil Engineering students, Professor Johnston.
Agricultural students, Dean Atkeson.
Freshmen and Sophomore A.B.L. and LL.B. students, Mr. Whyte.
Junior and Senior A.B.L. and Special Law students, Professor Willey.
Junior LL.B. students, Professor Brooke.

Senior LL.B. students, Dean Johnson.
Music students, Professor Ellenberger.
Art students, Mrs. Hubbard.
Commercial students, Mr. Willis.
Special students, Mr. Fast.
Graduate students, President Raymond.

Synoptic Lectures.

A system of synoptic lectures has been adopted, the purpose being to present the outlines of the leading branches taught in the University in such a way as to convey the maximum of important information in the minimum of time, so that students may become familiar with the salient features of subjects which they are unable to take up as regular studies. The synoptic lectures will be given in courses of ten lectures on each subject, one lecture per week. The hour for these lectures is 8 P. M., Tuesdays and Thursdays. To these lectures the public is invited as well as the University students in all departments. At least one course of synoptic lectures will be given each quarter, and more when possible. At the close of each series of synoptic lectures, an examination will be held, and students who pass this examination will be given credit for one-third of a course. Students who desire to receive credit for synoptic lectures will obtain class cards for these lectures from their class officers, the same as for any other class; but students who do not desire credit, and persons not connected with the University, will be admitted to the lectures without cards.

During the coming year the following courses of synoptic lectures will be given:

Summer Quarter, 1898:

Greek Life and Literature. Professor Woolery, Tuesday evenings.
Comparative Religion. Professor Reynolds, Thursday evenings.

Fall Quarter, 1898:

The Development of English Literature. Professor Armstrong, Tuesday evenings.
Geology. Professor Brown, Thursday evenings.

Winter Quarter, 1899:

Astronomy. Professor Stewart, Tuesday evenings.
Social Institutions of the Orient. President Raymond, Thursday evenings.

Spring Quarter, 1899:

The Fundamentals of the Common Law. Professor Brooke, Tuesday evenings.
Roman Life and Literature. Professor Douthat, Thursday evenings.

Special Lectures.

In addition to the synoptic lectures given by members of the Faculty, the University furnishes a series of public lectures by specialists from other institutions, and all students in the University are invited to attend them. During the present year special lectures have been given by:

Edward E. Barnard, Astronomer of the Yerkes Observatory, and Professor of Astronomy in the University of Chicago. Subject: "Photographic Revelations in Astronomy."

Clyde B. Furst, Lecturer for the American Society for the Extension of University Teaching. Subject: "Beowulf."

Robert Irving Fulton, Professor of Elocution and Oratory in Ohio Wesleyan University and Ohio State University. Subjects: "The Educational Value of Expression;" "The Qualities of Discourse."

B. Mason Ambler, of the Parkersburg bar. Subject: "The Duty of the State to Require a Higher Standard of Education for the Legal Profession."

William A. Pratt, Professor of Civil and Mining Engineering in Delaware State College. Subject: "Alaska and the Klondyke."

T. D. Lynch, Assistant Naval Inspector, Homestead Steel Works. Subject: "The Manufacture and Tests of Steel Castings."

William Kent, Consulting Engineer, New York. Subject: "The Iron and Steel Industry."

Leon Le Pontois, Consulting Electrical Engineer, Pittsburg. Subject: "Edison and his Inventions."

George B. Hynson, Professor of Elocution in the University of Pennsylvania. Subject: "The Genesis of Expression."

In addition to these lectures under University auspices, courses of popular lectures are annually arranged for by the Students' Lecture Association, the Young Men's Christian Association, and the Woman's League of the University.

Chapel Exercises.

Chapel exercises are held every day except Saturday and Sunday at 10 o'clock, in Commencement Hall. The exercises consist of singing the Gloria, announcements by the President, some special musical, elocutionary or other feature, Scripture reading and prayer by the University Chaplain, and a closing hymn. These services last about twenty minutes and are attended by all of the Faculty and students. The special features of the chapel exercises are found to be so attractive that many residents of the town come in to enjoy them. The chapel music is in charge of the Director of the School of Music.

Church Halls.

Several religious denominations have manifested an active interest in the question of establishing church halls in Morgantown for the purpose of providing homes for students during their stay in the University.

One such hall has been in operation for three years, the Episcopal Hall, founded by Rt. Rev. Geo. W. Peterkin, Bishop of West Virginia. Committees representing several other denominations have under advisement the founding of halls of a similar nature, or intended to accomplish the same purpose.

The Episcopal Hall.

The Episcopal Hall was established in 1895 by Bishop Peterkin to provide a home for young men studying for the ministry under his direction, and for any other students of the University who may choose to reside there. He did this in preference to establishing a separate church college, which would have necessitated the duplication of the plant already established at the University. The Hall is a comfortable, home-like building of forty rooms, heated by steam and lighted by electricity, under the care of a warden, who is an Episcopal clergyman, and resides in the Hall, and eats at the same table with the students. The primary object of the Hall is to secure for the student not only the attractive corporate side of college dormitory life, such as is found in older colleges and universities, but to add something they do not have, viz.: some of the comforts of home life, and a reasonable amount of protection against the more serious temptations of student life away from the restraints of the family. An analogy may be found in the older individual colleges of Oxford and Cambridge, where the heads of the colleges or halls are called warden, rector, dean, etc.; and it is also along the lines of Thomas Jefferson's plans for the University of Virginia. No disagreeable or intrusive prying into the doings of the students is indulged in, nor is there compulsion used as to the amount of time to be put on studies, the hours of being in the house or retiring, or as to attendance on religious services; but a student who persistently neglects his work, or maliciously makes noise when others are studying, or whose conduct is found to be detrimental, and whose habits seem to be incurably immoral, is first of all warned to do better, and finally, advice failing, sent away. The object is to have only gentlemen, or those capable of being gentlemen, and students. The present warden, Rev. James Sheerin, has resigned, intending to leave in June, but letters addressed, "Warden of the Episcopal Hall, Morgantown, W. Va.," will receive prompt reply.

The charge for board and room per month of thirty days is $16.00. A student may obtain the right to room alone by paying $18.00 a month. Students in residence during the Spring quarter of 1898 are:

Albert Collett,
Henry Price Duty,
Leonard S. Hall,
Alfred Izon,
Jos. C. Jefferds,
Frank B. Kunst,
G. H. A. Kunst,
M. Wood Crim Peck,
Chas. E. Lewis,
W. Gregory Marten,
Clarence E. Martin,
Percy N. McDonald,
Robert Nelson Meade,
A. B. Nichols,
Herbert Cromwell Peck,
Ernest D. Lea,
Percy O. Rice,
R. D. Roller,
B. R. Roller,
Geo. Sheerin,
Harold Ward,
J. Augustine Willis,
H. J. Zevely,
Harry Reynolds.

Special Course for Candidates for the Ministry.

In response to the suggestion of Bishop Peterkin, a short course of studies is provided for young men residing in the Episcopal Hall who are looking forward to admission to the Theological Seminary at Alexandria, Va. Though following the canonical requirements of the Episcopal Church for those desiring to be admitted candidates for priest's orders, who have not obtained a degree in Arts at some university or college, it may be found of use to others of other churches who have neither the time nor the means to take the full course leading to a degree. Young men under twenty are advised to pursue the regular classical course, which gives them a better foundation for after work, and this partial course is intended chiefly for those maturer students whose early advantages have been limited, and whose time or means are restricted. Besides the subjects mentioned here, it would be well for such students to elect as much other work as possible,—the whole course to be from one to three years in length, according to the previous preparation of the student. The outline of appointed studies is given below, the details, hours, etc., being left, so far as students in the Episcopal Hall are concerned, to the judgment of the Warden, in consultation with the different professors.

I. The English Language and Literature.
II. At least the first principles and general outlines of:
  (1) Logic.
  (2) Rhetoric.
  (3) Mental and Moral Philosophy.
  (4) Physics.
  (5) History.
  (6) The Latin and Greek Languages.

University Fees.

Except in the School of Music, and in the Departments of Elocution and Drawing and Painting, tuition is free to West Virginia students.

The tuition charged students from other states is:

$5.00 per quarter in the Preparatory School.
$5.00 per quarter in the Commercial School.
$8.00 per quarter in the College of Law.
$12.50 per quarter in the other colleges.

The matriculation fee is $5.00, payable upon entering the University by all students except cadets and those whose work is exclusively in Music, Art or Elocution. Unless a student remains out of the University more than three years, the matriculation fee is paid but once by each student.

The contingent fee is $2.00 per quarter, payable at the beginning of the quarter by all students except cadets and those whose work is exclusively in Music, Art or Elocution.

The dispensary fee is fifty cents per quarter, payable at the beginning of the quarter by all students except those whose work is exclusively in Music, Art or Elocution. This dispensary fee entitles the student to free medical attendance should he require it.

The diploma fee is $5.00, payable upon graduation by all students. This fee is to cover the cost of the diploma.

Students in laboratory courses in Chemistry and Anatomy pay the following fees, to cover the cost of material used:

$2.00 per quarter in General Chemistry.
$6.00 per quarter in Analytical Chemistry.
$5.00 per quarter in Anatomy.

The School of Music, and the Departments of Elocution and Drawing and Painting, are supported by the special fees charged. These fees are moderate, and are set forth in connection with the announcements of these departments.

Board and Lodging.

Board and lodging together may be obtained in Morgantown for $3.00 per week. Most students, however, pay from $3.25 to $4.00 per week. Furnished rooms may be obtained in private families at from $1.00 to $1.25 per week. Board in students' clubs costs from $2.00 to $2.50 per week; in private families, from $2.50 to $3.00.

Estimated Expenses for a Year of Nine Months.

Room rent	$36.00 to	$ 45.00
Board	72.00 to	108.00
Washing	9.00 to	13.00
Text-books	8.00 to	30.00
Contingent and dispensary fees	7.50 to	7.50
	$132.50	$203.50

To this estimate must be added matriculation and tuition fees, in the case of students who are required to pay them, and also traveling expenses, clothing, and miscellaneous expenses, which depend largely upon the tastes and habits of individual students.

Text-books are kept for sale in the University book room, and are furnished to students at cost.

State cadets are furnished their text-books, stationery and uniforms free.

Approved Boarding and Rooming Places.

Hereafter a committee of the Faculty will have general oversight of the question of boarding and rooming, and will not only help the students to find desirable places, but will see that no student rooms or boards at an objectionable place. At present the Committee on Approved Boarding and Rooming Places consists of: Professor Robert A. Armstrong, Mr. Richard E. Fast, Professor Alexander R. Whitehill.

Students in search of rooms or boarding places and proprietors of lodging or boarding houses are requested to confer with the members of this committee, who will prepare and publish regularly a list of approved boarding and rooming places for students.

Accredited Preparatory Schools.

The University is a part of the public school system of the State, and desires that its relations with the other parts of the system be as close and intimate as possible. At the beginning of this year a Faculty Committee on Accredited Schools was appointed, consisting of Professors Hodges, Miller and Woolery. Upon recommendation of this committee, the Faculty has placed a few schools on the accredited list, and certificates from these schools will be accepted by the University in place of entrance examinations in subjects upon which students have passed at the accredited schools. School superintendents, principals, or boards, desiring to have their schools placed

on the accredited list, should make application to Professor Thomas E. Hodges, chairman of the Committee on Accredited Schools, and the application will receive prompt and careful attention. Approved secondary schools outside West Virginia will, upon application, be placed on the accredited list on the same conditions as West Virginia schools. Students who come to the University from accredited schools are required to present certificates indicating the work they have completed.

The list of accredited schools at present is as follows:

Huntington State Normal School, L. J. Corbly, Principal.

West Liberty State Normal School, J. N. Deahl, Principal.

Fairmont State Normal School, J. Walter Barnes, Principal.

Glenville State Normal School, W. J. Holden, Principal.

Shepherdstown State Normal School, A. C. Kimler, Principal.

Athens State Normal School, George M. Ford, Principal.

Lee Military Academy, Lewisburg, James M. Lee, Principal.

Barboursville College, Barboursville, Rev. Dr. Z. Meeks, President.

Broaddus Classical Institute, Clarksburg, Miss Bertha B. Stout, Principal.

Huntington High School, Mrs. Naomi Everett, Principal.

Martinsburg High School, C. H. Cole, Principal.

Pittsburg, Pa., High School, C. B. Wood, Principal.

Uniontown, Pa., High School, Lee Smith, Principal.

Matriculation and Registration.

Before being admitted to any classes, students matriculate at the President's office, room 10 Science Hall, and all students are required to register once every year.

THE UNIVERSITY LIBRARY.

Library Committee.

JEROME HALL RAYMOND, Ph.D., President of the University.

ELIZA JANE SKINNER, Library Director and Instructor in Library Science.

ROBERT ALLEN ARMSTRONG, A.M., Professor of English Literature.

POWELL BENTON REYNOLDS, D.D., Professor of Philosophy.

SAMUEL B. BROWN, A.M., Professor of Geology and Mineralogy.

WILLIAM SLEEPER ALDRICH, M.E., Professor of Mechanical Engineering and the Mechanic Arts.

THOMAS CONDIT MILLER, A.M., Professor of Pedagogy.

ALFRED JARRETT HARE, A.B., Professor of the Latin Language and Literature.

FREDERIC WILLIAM SANDERS, Ph.D., Assistant Professor of European History.

RICHARD ELLSWORTH FAST, LL.B., Instructor in American History and Political Science.

Library Staff.

ELIZA JANE SKINNER, Library Director.

CLARA HOUGH, Librarian.

ANNA BANCROFT WHITE, B.S., Assistant.

FRANCIS ALOYSIOUS HAUBER, B.S., Assistant.

Library and Reading Room.

The Library is for the use of students in all departments of the University. Two volumes may be taken out at a time and retained for two weeks. Upon request of instructors, books used as collateral reading in University courses are reserved on tables conveniently placed for consultation.

The Library may be consulted by all persons, whether connected with the University or not, and, under special regulations, the privilege of borrowing books is extended to those not connected with the University.

The Library is open from 8 A. M. to 10 P. M. every day except Sunday throughout the year. Students have free access to the shelves, and are urged to avail themselves of the opportunity thus offered to become familiar with the standard works in each department of learning.

The growth of the collection, together with the requirements of modern university work, which make the Library the working laboratory for all departments of study, have indicated the necessity of introducing a modern system of classification and general re-arrangement of books. Accordingly the Library is being thoroughly reorganized.

The Dewey decimal system of classification has been adopted. New floor cases have been provided for the proper shelving of the books. Work is progressing on a dictionary card catalogue, which, by its arrangement of authors, titles, and subjects in one alphabet, will render available and greatly increase the usefulness of the material which the Library contains.

About seven hundred volumes have been added during the past year, and it is hoped that the annual increase may in a few years give the Library equal strength in all departments.

Bibliographic aids have been added, and the attendants in charge are ready at all times to give assistance in research and investigation. The value to the university student of a knowledge of the proper use of books is inestimable. It is the aim to develop this line of instruction, and to make the Library the attractive working center of the University.

The work of reorganization being unfinished, accurate statistics are not available. The estimated number of bound volumes is as follows:

General Works,	400
Philosophy,	350
Religion,	700
Sociology,	900
Philology,	200
Natural Science,	1,500
Useful Arts,	1,200
Fine Arts,	150
Literature,	1,800
History (including Biography),	2,000
Government Publications,	3,500

Total number of volumes estimated at 13,000. In addition, the Library contains a large number of pamphlets.

The reading room occupies a part of the room devoted to the Library, and is provided with the current newspapers and periodicals, both general and technical. The periodical list includes about seventy-five of the best magazines and papers, and twenty-five county papers. The room is well lighted and is free to all who care to use it.

THE COLLEGE OF ARTS AND SCIENCES.

Staff of Instruction.

JEROME HALL RAYMOND, Ph.D., President of the University, and Professor of Economics and Sociology.

ROBERT ALLEN ARMSTRONG, A.M., Vice-President of the University, and Professor of English Literature.

POWELL BENTON REYNOLDS, D.D., Chaplain of the University, and Professor of Philosophy.

JOHN ISHAM HARVEY, Ph.D., Professor of Modern Languages.

ALEXANDER REID WHITEHILL, Ph.D., Professor of Chemistry.

JAMES WILLIAM HARTIGAN, A.M., M.D., Professor of Biology.

SAMUEL B. BROWN, A.M., Professor of Geology and Mineralogy.

THOMAS CONDIT MILLER, A.M., Professor of Pedagogy.

JAMES SCOTT STEWART, M.S., Professor of Mathematics.

ROBERT WILLIAM DOUTHAT, Ph.D., Professor of the Latin Language and Literature.

THOMAS EDWARD HODGES, A.M., Professor of Physics.

LEWIS CASS WOOLERY, A.M., Professor of the Greek Language and Literature.

JOHN ALEXANDER LOCKWOOD, M.S., Professor of Military Science and Tactics.

FREDERIC WILLIAM SANDERS, Ph.D., Assistant Professor of European History.

FREDERICK WILSON TRUSCOTT, Ph.D., Assistant Professor of Germanic Languages and Literatures.

WILLIAM EARL RUMSEY, B.S.Agr., Instructor in Botany.

RICHARD ELLSWORTH FAST, LL.B., Instructor in American History and Political Science.

JAMES PRIMROSE WHYTE, A.B., Instructor in Rhetoric and Elocution.

ELIZA JANE SKINNER, Library Director, and Instructor in Library Science.

Courses and Degrees.

The College of Arts and Sciences offers:

I. Four undergraduate courses, each requiring usually four years for completion, as follows:

1. The Classical Course, leading to the degree of Bachelor of Arts (A.B.). In this course special attention is paid to the study of the Latin and Greek Languages and Literatures.

2. The Scientific Course, leading to the degree of Bachelor of Science (B.S.). The characteristic of this course is the study of natural science and mathematics.

3. The Philosophical Course, leading to the degree of Bachelor of Philosophy (Ph.B.). In this course only one of the classical languages is required, and the time gained by the omission of the other is devoted to the study of natural science, philosophy, and the modern languages and literatures.

4. The Modern Literature Course, leading to the degree of Bachelor of Letters (B.L.). Neither of the classical languages is required in this course, and only one quarter's study of mathematics. Emphasis is laid upon the study of modern languages and literatures.

II. The Premedical Course, requiring one year for completion. This course does not lead to any degree, but admits to advanced standing in leading medical colleges. Chemistry, Anatomy, and Physiology are the characteristic studies of this course.

III. Graduate courses leading to the degrees of Master of Arts, Master of Science, Master of Philosophy, and Master of Letters. These degrees are conferred only upon students who have previously received the degrees of Bachelor of Arts, Bachelor of Science, Bachelor of Philosophy, and Bachelor of Letters, respectively, and who, after graduation, have pursued an approved course of study for one year at the University, and present a satisfactory thesis upon some subject connected with the principal study pursued.

Requirements for Admission.

Candidates for admission must be at least fifteen years of age, and must present satisfactory evidence of good moral character. They must bring credentials from their last instructor, or from the last institution with which they were connected.

Graduates from the academic courses of the state normal schools, and from approved high schools and preparatory schools, will be admitted without further examination, and permitted to enter upon such undergraduate work as the preparatory studies contemplated.

The University will honor the diplomas and certificates of those preparatory schools only which conform their work to the requirements here set forth.

Unless admitted on diploma or certificate, every undergraduate candidate for a degree from West Virginia University is, before entering college, required to pass examinations upon the subjects here set forth as preparatory to the course which he has chosen.

For the Year 1898.

Classical Course.

Until July 1, 1899, the requirements for admission to the Classical Course are as follows:

1. **History:**
   (a) General History,—Myers, or an equivalent;
   (b) United States History,—Fiske, or an equivalent.
2. **English:**
   (a) Spelling, punctuation, capitalization and paragraphing;
   (b) The leading facts of English grammar;
   (c) Composition,—ability to write good English;
   (d) Literature:

Part I. Reading.—A certain number of books are set for reading. The candidate will be required to present evidence of a general knowledge of the subject matter, and to answer simple questions on the lives of the authors. The form of examination will usually be the writing of a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number—perhaps ten or fifteen—set before him in the examination paper. The treatment of these topics is designed to test the candidate's power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. In place of a part or the whole of this test, the candidate may present an exercise book, properly certified by his instructor, containing compositions or other written work done in connection with the reading of the books.

The following are the books for 1898:

Milton's "Paradise Lost" (Books I. and II.), Pope's "Iliad" (Books I. and XXII.), the Sir Roger de Coverly Papers in "The Spectator," Goldsmith's "The Vicar of Wakefield," Coleridge's "Ancient Mariner," Southey's "Life of Nelson," Carlyle's "Essay on Burns," Lowell's "Vision of Sir Launfal," Hawthorne's "The House of Seven Gables."

Part II. Study and Practice.—This part of the examination presupposes the thorough study of each of the works named below. The examination will be upon subject matter, form and structure.

The books for this part of the examination for 1898 are:

Shakespeare's "Macbeth," Burke's Speech on "Conciliation with America," De Quincey's "Revolt of the Tartars," Tennyson's "The Princess."

3. Mathematics:

(a) Arithmetic completed;
(b) Algebra to Logarithms,—Wells' University Algebra, or an equivalent;
(c) Plane Geometry,—Wells, or an equivalent.

4. Elementary Science:

(a) Physical Geography;
(b) Human Anatomy and Physiology;
(c) Physics;
(d) Botany.

The course in each to be not less than one term of twelve weeks, five recitations a week.

5. Latin:

(a) Grammar and Elementary Book,—Chase and Stuart, or an equivalent;
(b) Cæsar,—one book;
(c) Cicero,—three orations;
(d) Virgil,—one book of the Æneid.

6. Greek:

(a) White's First Greek Book, or an equivalent;
(b) Prose Composition;
(c) Xenophon's Anabasis,—first book.

One year of daily recitations should be given to this preparatory work in Greek.

Scientific Course.

Until July 1,1899, the requirements for admission to the Scientific Course are as follows:

(1) History, (2) English, (3) Mathematics, (4) Elementary Science, and (5) Latin, as required for admission to the Classical Course.

6. French or German.

FRENCH:

(a) Whitney's or Edgren's Grammar, and Super's or Rollin's Reader;

(b) Halevy's L'Abbe Constantin, or an equivalent amount of reading; or

GERMAN:

(a) Joynes-Meissner's or Thomas' Grammar, Joynes' or Harris' Reader;

(b) Schiller's Jungfrau von Orleans, or an equivalent amount of reading.

One year of daily recitations should be given to this preparatory work in French or German.

7. Drawing,—Free Hand and Instrumental:

The equivalent of three exercises a week throughout one year.

Philosophical Course.

Until July 1, 1899, the requirements for admission to the Philosophical Course are as follows:

(1) History, (2) English, (3) Mathematics, (4) Elementary Science, as required for admission to the Classical Course.

5. Latin or Greek.

The candidate may choose between these languages, offering as much preparatory work in the one chosen as is required for the course leading to the degree of Bachelor of Arts, that is, one year of Greek, or two years of Latin.

6. French or German.

If the candidate for admission to this course presents one year of Greek, he must present two years of French or German; or, if he presents two years of Latin, he must present one year of French or German. The candidate may, if he so choose, offer both Latin and Greek, in which case there shall be no modern language requirement.

Modern Literature Course.

Until July 1, 1899, the requirements for admission to the modern Literature Course are as follows:

(1) History, (2) English, (3) Mathematics, (4) Elementary Science, as required for admission to the Classical Course.

5. French or German.

Three years of French or German, or three years of French and German will be required. This requirement in foreign language may be satisfied by three years made up in whole or in part of Latin and Greek.

For the Year 1899.

Classical Course.

After July 1, 1899, the subjects on which applicants for admission to the Classical Course will be examined are as follows:

1. History:

(a) General History,—Myers, or an equivalent;
(b) United States History,—Fiske or an equivalent.

2. English:

The requirements in English will be the same in general as described above for the year 1898, except that the books for reading, and for study and practice will be as follows:

Part I. Reading.—Dryden's "Palamon" and "Arcite," Pope's "Iliad" (Books I., VI., XXII., and XXIV.), the Sir Roger de Coverly Papers in "The Spectator," Goldsmith's "The Vicar of Wakefield," Coleridge's "The Ancient Mariner," De Quincey's "The Flight of the Tartar Tribe," Cooper's "The Last of the Mohicans," Lowell's "The Vision of Sir Launfal," Hawthorne's "The House of Seven Gables."

Part II. Study and Practice.—Shakespeare's "Macbeth," Milton's "Paradise Lost" (Books I. and II.), Burke's Speech on "Conciliation with America," and Carlyle's "Essay on Burns."

3. Mathematics:

(a) Arithmetic completed;
(b) Algebra to Logarithms,—Wells' University Algebra, or an equivalent;
(c) Plane Geometry,—Wells, or an equivalent.

4. Elementary Science:

(a) Physical Geography;
(b) Human Anatomy and Physiology;
(c) Physics;
(d) Botany.

The course in each to be not less than one term of twelve weeks, five recitations a week.

5. Latin:

(a) Grammar and Elementary Book,—Chase and Stuart, or an equivalent;
(b) Cæsar,—four books;
(c) Cicero,—five orations;
(d) Virgil,—six books.

Three years of daily recitations should be given to this preparatory work in Latin.

6. Greek:

(a) White's First Book, or an equivalent;
(b) Xenophon's Anabasis,—four books;
(c) Homer's Iliad,—three books;
(d) Prose Composition,—one year.

Two years of daily recitations should be given to this preparatory work in Greek.

Scientific Course.

After July 1, 1899, the requirements for admission to the Scientific Course will be as follows:

(1) History, (2) English, (3) Mathematics, (4) Elementary Science, and (5) Latin, as required (1899) for admission to the Classical Course.

6. French or German.

Two years of French or German will be required for admission to this course—two years of daily recitations.

7. Drawing,—Free Hand and Instrumental:

The equivalent of three exercises a week throughout one year.

Philosophical Course.

After July 1, 1899, the requirements for admission to the Philosophical Course will be as follows:

(1) History, (2) English, (3) Mathematics, (4) Elementary Science, as required (1899) for admission to the Classical Course.

5. Latin or Greek.

The requirement in ancient language may be satisfied by three years of Latin, or two years of Greek.

6. French or German.

The candidate who presents three years of Latin must present also two years of French or German, and the candidate who presents two years of Greek must present also three years of French or German.

A year s work, it is always understood, consists of five recitations a week throughout the year.

Modern Literature Course.

After July 1, 1899, the requirements for admission to the Modern Literature Course will be as follows:

(1) History, (2) English, (3) Mathematics, (4) Elementary Science, as required for admission to the Classical Course.

5. French and German.

The requirements in foreign language may be satisfied by (1) three years of Latin and two years of Greek; or (2) three years of Latin and two years of French or German; or (3) two years of Greek and two years of French or German; or (4) two years of French and two years of German.

For the Year 1900.

After July 1, 1900, the requirements for admission to the various courses will be as above described for the year 1899, except that Solid Geometry will be added to the entrance requirements in Mathematics in all courses.

Modern Languages.

Students who have not had opportunity of making the preparation in modern languages necessary to be admitted to the courses having entrance requirements in these languages, may be admitted conditionally to the freshman class in such courses and make up this preparatory work in the college classes.

Admission to Special Courses.

Young men under twenty-one years of age, desiring to take special courses, are required to present the same qualifications as candidates for one of the regular courses. Young men twenty-one years of age or over, and young women over fifteen years of age, who are not candidates for a degree and who wish to take special studies, will be permitted to do so upon giving satisfactory evidence that they are prepared to take the desired studies advantageously. If they subsequently desire to become candidates for degrees, or to take regular courses, they must pass the required entrance examinations.

Requirements for Baccalaureate Degrees.

For all baccalaureate degrees offered by the College of Arts and Sciences at least forty-two full courses are required, of which thirty-six must be full courses of class exercises. The remaining six courses may be made up of synoptic lectures, military or gymnastic work, or other practical exercises.

A full course in the nomenclature of these announcements means a course of five class exercises a week for one quarter,or their equivalent in laboratory or other practical work.

Candidates for degrees in the College of Arts and Sciences are not permitted to take less than three nor more than four full courses at one time; and they are not permitted to take four full courses in consecutive quarters without the permission of the Faculty.

The courses required for the various baccalaureate degrees offered by the College of Arts and Sciences are as follows:

Bachelor of Arts.

3 courses in Mathematics.
3 courses in Latin.
3 courses in Greek.
3 additional courses in either Latin or Greek.
3 courses in one Modern Language.
2 courses in Rhetoric.
1 course in the Development of the English Language.
2 courses in English Literature.
3 courses in History.
2 courses in Chemistry.
1 course in Biology.
1 Laboratory Course in Science.
1 course in Psychology.
1 course in Economics.
1 course in Sociology.
1 course Thesis.

31 courses required.
11 courses elective, of which not more than six may be taken in military work, gymnastics, and synoptic lectures.

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Bachelor of Science.

6 courses in Pure Mathematics.
3 courses in German.
3 courses in French.
2 courses in Rhetoric.
1 course in English Literature.
2 courses in History.
2 courses in Chemistry.
2 courses in Physics.
2 courses in Biology.
1 course in Geology.
1 course in Psychology.
1 course in Economics.
1 course in Sociology.
1 course Thesis.

28 courses required.
14 courses elective, of which not more than six may be taken in military work, gymnastics, and synoptic lectures.

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Students who take their fourteen elective courses and their theses in Engineering subjects will receive in addition to the degree of Bachelor of Science a certificate indicating the character of their elective work.

Bachelor of Philosophy.

2 courses in Mathematics.
3 courses in one Classic Language.
3 courses in German.
3 courses in French.
2 courses in Rhetoric.
1 course in Development of the English Language.
2 courses in English Literature.
3 courses in History.
2 courses in Chemistry.
1 course in Biology.
1 course in Psychology.
1 course in Logic.
1 course in History of Philosophy.
1 course in Economics.
1 course in Sociology.
1 course Thesis.

28 courses required.
14 courses elective, of which not more than six may be taken in military work, gymnastics, and synoptic lectures.

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Bachelor of Letters.

1 course in Mathematics.
3 courses in German.
3 courses in French.
2 courses in Rhetoric.
1 course in Development of the English Language.
3 courses in English Literature.
3 courses in History.
1 course in Political Science.
1 course in Biology.
1 course in Chemistry.
1 Laboratory Course in Science.
1 course in Psychology.
2 courses in Economics.
1 course in Sociology.
1 course Thesis.

25 courses required.
17 courses elective, of which not more than six may be taken in military work, gymnastics, and synoptic lectures.

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Premedical Course.

The Premedical Course has been arranged for students who intend to study Medicine. Requirements for admission to this course are: English and Elementary Science, as required for admission to the regular degree courses in the College of Arts and Sciences, and one year of Latin.

The Premedical Course is designed to occupy a student one year. It includes the following:

Two courses in Chemistry
One course in General Biology.
Two courses in Botany.
Two courses in Zoology, including Microscopy.
Two courses in Anatomy.
One course in Physiology.

Schedule of Recitations and Lectures.

Premedical Course.

	FALL.	WINTER	SPRING.
8:00		Zoology	Adv. Zoology
9:00	Chemistry 1	Chemistry 2	
10:30	General Biology	Descriptive Botany	Field Botany
11:30	Anatomy	Adv. Anatomy	Physiology

Students who complete this course will be given certificates which will admit them to the second year in the course leading to the degree of M.D. at the following institutions:

Miami Medical College, Cincinnati, Ohio.
Medical Department, University of Ohio, Cincinnati, Ohio.
Barnes Medical College, St. Louis, Mo.
Medical College of Western Pennsylvania, Pittsburg, Pa.
Baltimore Medical College, Baltimore, Md.
College of Physicians and Surgeons, Baltimore, Md.
Medical Department, University of Maryland, Baltimore, Md.
Eclectic Medical Institute, Cincinnati, Ohio.
Southern Homœopathic Medical College, Baltimore, Md.
Starling Medical College, Columbus, Ohio.

Order of Studies.

There is no prescribed order in which a student in the College of Arts and Sciences must take the courses required. Each student will arrange with his Class Officer at the beginning of each quarter as to the courses he will take during that quarter. The Class Officer will use his judgment in the assignment of studies. It is his duty to see that each student under his charge takes his work in the order which will be most beneficial.

In general, however, it is expected that during the Freshman year a student in the Classical Course will take three courses in Latin, three courses in Greek, and three courses in Mathematics. In the Scientific Course, Freshmen will be expected to take three courses in Mathematics, three courses in one of the modern languages, and three courses in Physics or Chemistry. In the Philosophical Course, Freshmen are expected to take three courses in one of the ancient languages, three courses in one of the modern languages, and at least two courses in Mathematics. In the Modern Literature Course, Freshmen will be expected to take at least one course in Mathematics, three courses in French or German, and three courses in History and English. The remainder of the work taken by Freshmen, as well as by students in the other classes, will be such as may be selected jointly by the student and his Class Officer, and in each case will depend upon the individual student's preparation and plans.

Suggested Partial Schedule of Studies for Freshmen and Sophomores.

Classical Course.

	FALL.	WINTER.	SPRING.
		FRESHMAN.	
8:00	Greek	Greek	Greek
9:00	Latin	Latin	Latin
10:30	Algebra	Solid Geometry	Trigonometry

Classical Course—Continued.

	FALL.	WINTER.	SPRING.
		SOPHOMORE.	
11:30	Rhetoric	Rhetoric	General Survey of English Literature

Scientific Course.

		FRESHMAN.	
9:00	Chemistry	Chemistry	
10:30	Algebra	Solid Geometry	Trigonometry
11:30	French	French	French
		SOPHOMORE.	
8:00	Analytical Geometry	Calculus	Calculus
10:30	Physics	Physics	
11:30	Rhetoric	Rhetoric	General Survey of English Literature

Philosophical Course.

		FRESHMAN.	
9:00	Latin	Latin	Latin
10:30	Algebra	Solid Geometry	
11:30	French	French	French
		SOPHOMORE.	
11:30	Rhetoric	Rhetoric	General Survey of English Literature

Modern Literature Course.

		FRESHMAN.	
8:00	History	History	
10:30	Development of the English Language	Solid Geometry	
11:30	French	French	French
		SOPHOMORE.	
11:30	Rhetoric	Rhetoric	General Survey of English Literature

Special Electives.

By special action of the Faculty a certain amount of credit is allowed toward baccalaureate degrees for work in Music, Physical Training, Military Science and Tactics, Drawing and Painting, Public Speaking and Elocution, Law, and Engineering.

Music.

1. A candidate for the degree of Bachelor of Arts or Bachelor of Science may elect three courses in Music to be credited toward the degree.

2. A candidate for the degree of Bachelor of Philosophy may elect five courses in Music to be credited toward the degree.

3. A candidate for the degree of Bachelor of Letters may elect six courses in Music to be credited toward the degree.

4. At least two of the courses in Music for which credit is given must be in the Science of Music—that is, in Harmony, or in Counterpoint, or in the Theory of Music, or in Analysis.

5. No credit toward degrees will be given for the first three courses in Piano, Violin or other stringed instruments, or Voice.

Physical Training.

1. The regular class in Physical Training for men meets in the Gymnasium at five o'clock Mondays, Wednesdays, and Fridays. Other sections are organized when necessary. The regular class in Physical Training for lady students meets at five o'clock Tuesdays and Thursdays, and four o'clock Fridays. Young men in the College of Arts and Sciences are required to take at least two years of Physical Training, unless they have previously had it in the Preparatory School, or are members of the Cadet Corps, or are excused for satisfactory reasons. For lady students, the Physical Training is entirely elective.

2. When Physical Training is taken either as required or elective work by candidates for degrees in the College of Arts and Sciences, and performed in a manner satisfactory to the Instructor in Physical Training, each quarter's work is credited as one-third of a course, provided that no student shall receive credit for more than four full courses in Physical Training during his college course.

Military Science and Tactics.

1. The regular hour for military work is from four to five o'clock Mondays, Tuesdays, Wednesdays and Thursdays. This work is both practical and theoretical. Membership in the Cadet Corps is entirely elective, but when students elect to enter the corps they enlist for a period of two or four years. Students who enlist for two years only may resign at the end of the first year if they expect to

leave the University, but students who intend to remain at the University may not resign until the end of the second year.

2. When the work in Military Science and Tactics is taken by candidates for degees in the College of Arts and Sciences, and is done in a manner satisfactory to the Commandant of the Cadets, each quarter's work is credited as a half course.

Drawing and Painting.

Candidates for degrees in the College of Arts and Sciences in all courses may elect and receive credit for two courses in Drawing; and students in the Modern Literature Course may, in addition, elect and receive credit for a third advanced course in Drawing or one course in Painting; arrangements for such work to be made with the Instructor in Drawing and Painting.

Public Speaking and Elocution.

Candidates for degrees in the College of Arts and Sciences in all courses may elect and receive credit for three courses in Public Speaking or Elocution; arrangements for such work to be made with the instructor in those branches.

Law.

Candidates for degrees in the College of Arts and Sciences may elect and receive credit for the two courses in Constitutional and International Law given in the College of Law.

Engineering.

Any student taking the regular Scientific course may be allowed to count Engineering studies and work among his electives. All such Engineering electives shall follow their regular sequence as required in the regular Engineering courses, and shall have as full and regular count in making up any future work leading to Engineering degrees as if they had been originally taken in the course for such degree. In no case of such substitution of Engineering electives shall it result in the student having fewer than fourteen hours of class room recitations weekly each year of his course.

DEPARTMENTS OF INSTRUCTION.

In the following announcements, unless otherwise noted, each course described is a full course, the class meeting five times a week, Mondays to Fridays inclusive, throughout one entire quarter. The quarter during which the course is given, as well as the hour and classroom, are named, whenever possible, at the end of the announcement of each course. When a course is given more than once during the year, each quarter in which it is given is named. Where the quarter is named, but not the year, it is expected that the course will be given every year during the quarter named. Where the year as well as the quarter is named the course will not be given until the year named. Where the announcement of a course is not followed by the name of the instructor it is expected that the class will be conducted by the head of the department. All courses are designated by the name of the department and the number of the particular course. Thus the first course in Psychology is known as "Philosophy 1;" the course in Electricity and Magnetism is known as "Physics 8," etc. The abbreviations used are: U., University Hall; S., Science Hall; M., Mechanical Hall; C., Commencement Hall; P., Preparatory Hall; A., Agricultural Experiment Station.

Philosophy.

PROFESSOR REYNOLDS.

1. Psychology. An introductory course, devoted to the study of: (1) the intellectual processes, the feelings, and the processes of volition; (2) an outline of the structure and functions of the brain and nervous system as related to the states of consciousness and mental processes; (3) mental culture—the principles and methods of mental training, and the application of Psychology to education. Ladd's "Outlines of Descriptive Psychology," with lectures and notes by the instructor.

Summer, 10.30; Fall, 8.00; 10 U.

2. Logic and the Principles of Science. A review of the processes of conception, judgment, and reasoning; a discussion of the nature and laws of inference, induction, and the subsidiary processes, such as observation, experiment, classification, hypothesis; causes and methods of induction; imperfect inductions and fallacies; the elements of deduction and formal logic; a discussion of propositions and syllogisms; fallacies and the means of detecting them. Fowler's "Logic," with references to Mill, Jevons, and Bain, and numerous orginal exercises. Summer, Winter, 8.00; 10 U.

3. Elements of Ethics. A review of the mental processes that control conduct; the fundamentals of morality, such as the moral faculty, the ground of obligation, the moral standard, the moral law, moral sanction; moral culture; practical morality, or duties, personal and

social, and the ground of them. Mackenzie's "Manual of Ethics," with lectures and outlines by the instructor.

Summer, 11.30; Spring, 8.00; 10 U.

4. History of Philosophy. An outline of the history of the leading philosophers and schools, ancient, mediæval and modern; a summary and discussion of the tenets of the leading philosophers and systems, metaphysical, cosmological, theological, physical, ethical, and political, with their influence upon religion, morals, government and science. Lectures, with references to the works of Windelband, Ueberweg, Erdmann, and encyclopædias. Fall, 10.30; 10 U.

5. Comparative Religion. An outline of the leading religions of the world; a comparison of the beliefs, forms, and practices of the different religions; the relation of religious beliefs and forms to morals, government, science, social development, and civilization generally. Menzies' "History of Religion," supplemented by lectures and collateral reading. Winter, 10.30; 10 U.

6. Comparative Religion. Synoptic Lectures. An epitome of course 5. Ten public lectures, with a study of Menzies' "History of Religion." One-third course. Summer, Thursdays, 8.00 P. M.; C.

7. Comparative Ethics. An outline of the leading ethical systems; a study of the natural basis of Ethics; an examination of ethical development among different peoples in different ages; the relation of ethical principles to personal morality, human rights and the functions and duties of government. Spencer's "Data of Ethics," "Inductions of Ethics," and "Justice," supplemented by lectures and collateral reading. Spring, 10.30; 10 U.

8. Comparative Psychology and Mental Development. A study of the phases, conditions and progress of mental phenomena and activities, from the lowest to the highest grades in both animals and man, with special application to mental training. Lectures, experiments, laboratory investigation, and collateral reading. Fall, 1899; 10 U.

9. The Theory of Evolution. An outline of the history of the theory from the earliest times to the present; its phases, content, position, and influence, especially upon science, morals, and religion. Recitations, lectures, and collateral reading. Winter, 1900; 10 U.

10. Applied Ethics. A study of the basis and influence of ethical theories and standards upon religion, politics, economics, and individual and social culture. Lectures and collateral reading.

Spring, 1900; 10 U.

20. Philosophical Seminary. For advanced students. A special study of some of the leading philosophers and schools of philosophy. Outlines and syllabi will be provided, lectures given, reading assigned, papers presented and discussed. Meetings of the Seminary will be held once a week at a time to be fixed upon organization. The topic for the Fall Quarter, 1898, will be Kant and Kantian Philosophy.

Half course each quarter; 10 U.

Pedagogy.

PROFESSOR MILLER, ASSISTED BY SPECIAL LECTURERS.

If not already recognized as such, teaching is more nearly a profession today than ever before. Not long ago the one requisite of a teacher was thought to be a knowledge of his subject. Now it is believed that ability to teach well depends almost as much upon method and skill as upon one's knowledge of subject-matter. The successful teacher is somewhat acquainted with the natural order of development of the human mind; he realizes that there is a great difference between mere *telling* and *teaching*, and that he must assist the pupil in bridging the chasm between the known and the related unknown by both inductive and deductive processes. He uses the doctrine of interest and the laws of association as they stand related to educational methods, and in many ways that suggest themselves after a careful study of the subject he utilizes his pedagogical knowledge. Hence there is a growing conviction that teaching is a science, and that it demands as thorough professional training as law, medicine, or theology.

Furthermore, Pedagogy is now recognized as possessing a culture value along with its practical and disciplinary value. It is a helpful study for all classes of students. The student who gives to this subject the same careful attention that is accorded to other branches will be surprised and delighted with the broad and attractive field that opens before him. The progressive citizen needs to keep in touch with the trend of educational affairs, so that he may be able to aid in the proper training of youth, for there is no problem before the American people today of more importance than this one of character-building through the agency of the public school.

In providing instruction in Pedagogy the University aims to supplement and enlarge upon what has already been done in the normal schools. While the pedagogical courses are open to all collegiate students, it is suggested that they will prove of greatest value to those who are somewhat advanced in their studies. The aim, then, in offering these courses is:

1. To give to students opportunities for broader culture by a study of the history and the science of Education;

2. To aid in harmonizing our state educational system by bringing the secondary schools into closer relations with the University;

3. To prepare young men and women for the higher positions in the schools of the state. Many of the best educational positions in West Virginia are now filled by graduates of the University, and there is an increasing demand, here and elsewhere, for teachers competent to take charge of schools of high grade. Encouragement to instructors with this degree of proficiency is found in the fact that salaries have been increased very materially within the last few years.

1. History of Education. (a) Education in West Virginia, embracing a discussion of the General and the Irreducible School Fund, the Independent District, the County as a Unit of Taxation, and the Central High School. (b) Education in the United States. Morgan and Cork's "History of Education in West Virginia;" Boone's "History of Education in the United States."

Summer, 8.00; Fall, 10.30; 10 P.

2. Educational Psychology. The human faculties, their laws of development; the relation between Psychology and Pedagogy; physical basis of education; laws of association and apperception; the feelings and the will; conception, judgment, and reason; character-building. White's "Elements of Pedagogy;" McClellan's "Applied Psychology."

Summer, 9.00; Winter, 10.30; 10 P.

3. School Organization and Management. This course will include grading and classifying schools, courses of study, use of textbooks, discipline, examinations, proper incentives, school ethics, and many other features of practical pedagogics. "State Manual" and Raub's "School Management," supplemented by lectures, papers, and discussions. Summer, Spring, 10.30; 10 P.

4. The Science of Education. Educational theory; the basis of school systems and methods; "What knowledge is of most worth?" Educational values; the practical, the disciplinary, the culture value. Recitations, discussions, lectures, and essays. Payne's "Contributions to the Science of Education;" Hinsdale's "Studies in Education."

Fall, 9.00; 10 P.

5. Methods of Instruction. The art and science of teaching; general methods, special methods; school-room practice; the recitation and the written exercise; elementary science teaching in secondary schools; the teaching of History, English and Mathematics. Discussions, readings, critiques. De Garmo's "Essentials of Method;" Putnam's "Manual of Pedagogics." Winter, 9.00; 10 P.

6. Educational Epochs and Reformers. Pestalozzi, Froebel, Rousseau, Herbart, Horace Mann, Spencer, Rein, W. T. Harris, and Stanley Hall. No great movement can be thoroughly understood until we study the conditions which led to its development. Educational history is the history of ideas. The life and work of a reformer is a benediction upon the ages that follow. Biographies, critiques, and lectures. Quick's "Educational Reformers," The Great Educator Series, Winship's "Horace Mann," and other literature of the subject.

Spring, 9.00; 10 P.

7. School Buildings and Sanitation. Location of buildings, school grounds, lighting, heating, ventilation, sewerage, furniture, apparatus, and equipment. Illustrations of modern school architecture. Discussions and investigation with reference to the best conditions for district and city schools. A very important course for superintendents

and school officers. The general literature of the subject found in the pedagogical library will be studied.

Half course. First term, Summer, Spring, 2.00; 10 P.

8. School Supervision. State, county, city and district supervision. The relation of the superintendent to parents and patrons, to the Board and to his teachers; his authority and his moral influence in the community; school visitation and discipline; teachers' meetings, school reports, and general administrative duties. Payne and Pickard on Supervision. Half course. Second term, Summer, Spring, 2.00; 10 P.

9. Methods and Principles in Modern Education. A series of about fifteen lectures, two a day, July 13 to 20.

One-third course. Dr. Winship. Summer, 1898; C.

10. Educational Topics. A series of six lectures, July 14 and 15, as follows:

(1) The Teacher's Problem.
(2) The Teacher's Possibilities and Limitations.
(3) President Garfield as a Student and Teacher.
(4) Teaching-Material.
(5) Feeling as an Element in Education.
(6) Motor Forces in Our Educational History.

Professor Hinsdale. Summer, 1898; C.

11. The Educational System of Germany. A series of six lectures on the schools and school work of Germany, the aim being to give teachers and students of Pedagogy and Education an insight into the educational methods of the most scholarly nation in the world.

Professor Ford. First term, Summer, 1898; Mondays, 3.00; C.

12. Plain Talks to Practical Teachers. A series of six lectures:

(1) The Teacher's Preparation.
(2) The Art of Teaching.
(3) The Recitation.
(4) Language Training.
(5) School Discipline.
(6) Moral Training.

Professor Hodges. First term, Summer, 1898; Saturdays, 3.00; C.

Courses 10, 11, and 12 together, will count as a one-third course.

20. Seminary. Discussion of current educational topics and various features of pedagogical science; child study, and original investigation by laboratory methods, as far as such investigation is possible with the means at command. Half course each quarter. 3.00; 10 P.

Library Science.

Miss Skinner.

1. The Use of Books. A course designed to give an outline knowledge of the management, use, and methods of the library. It will consist of lectures on reference books in groups,—indexes, dictionaries,

encyclopædias, atlases, hand-books of history and of general information, quotations, statistics, etc. Students will be directed in the handling and examination of the books in the University library. Lectures, assigned work, and reports.

Half course. Summer, 1898; Tuesdays, Fridays, 3.00; 12 P.

Sociology.

PRESIDENT RAYMOND, ASSISTED BY SPECIAL LECTURERS.

1. Anthropology. An elementary course on man as the unit of society, and on the evolution of society and social institutions. The general purpose of the course is to point out how man has developed into his present social state, what the influences were which caused this development, and how these influences themselves have evolved. The general subjects discussed are: first, the antiquity of man, and the place man occupies in nature; second, the origin and early development of institutions which have made man what he is, and upon which contemporary society is based, such as language and writing, the arts of life and of pleasure, religion and science, mythology and history, the family and social structure. Tylor's "Anthropology," supplemented by lectures and assigned readings. Fall; 8.00.

2. Elements of Sociology. A course on the structure and functions of contemporary society. Existing society is studied as an objective reality, the student's own world being his laboratory. The course begins with a series of elementary lectures on the methods of scientific social study; the relation of the individual to society; the social organism; the physical and psychical bases of society; the social forces; the field of sociology and its relation to social reform. Meanwhile the individual members of the class have been assigned certain social institutions for personal observation and study, upon which they report fully in the class. The purpose is to bring out prominently the leading features in the associated life of human beings as it actually exists. Small and Vincent's "Introduction to the Study of Society," supplemented by lectures, assigned readings and reports. Winter; 8.00.

3. A Historical Survey of Sociological Thought. This course traces the gradual development of sociological thought from antiquity through the Hebrew, Greek, Roman, and mediæval writers down to our own times. The sociological teachings of a few classical writers, as Plato, Aristotle, and Cicero, are considered as types of ancient sociological thought. Mediæval thought is briefly discussed, taking writers like St. Augustine and St. Thomas Aquinas as types, with a view to explaining the slow growth of Sociology. The later developments of sociological thought are treated at greater length, the larger part of the course being devoted to the teachings of the most important modern sociologists. Lectures and assigned readings. Summer, Spring, 8.00.

4. A Group of Social Philosophers. A series of six public lectures, as follows:

(1) John Stuart Mill and Utilitarianism.
(2) Charles Kingsley and Christian Socialism.
(3) Thomas Carlyle and Paternalism.
(4) John Ruskin and Æsthetics.
(5) William Morris and Idealism.
(6) Arnold Toynbee and Humanitarianism.

First term. Summer; Monday, 8.00 P. M.; C.

5. Pure and Applied Sociology In this course Dr. Ward will give the outlines of his entire system of Sociology. The first part of the course will be devoted to Pure Sociology, and will occupy about thirty lectures, while the second part will be treated in about eighteen lectures. The Pure Sociology might be called Social Mechanics, including both Social Statics and Social Dynamics. The Applied Sociology aims to show how this pure science may be utilized by society in the same way that other pure sciences are rendered useful to man. It will be based upon the argument of the second volume of Dr. Ward's "Dynamic Sociology." Students who expect to take this course should, if possible, read either before coming or while taking the lectures, Dr. Ward's principal works, "Outlines of Sociology," "Dynamic Sociology," and "Psychic Factors of Civilization." Two lectures daily, 10.30 A. M., and 4 P. M.; Mondays to Saturdays, July 18 to August 13.

Professor Ward. Summer; 15 U.

6. Public Lectures by Dr. Ward. Dr. Ward will deliver four public lectures on sociological subjects between July 18 and August 13, as follows:

(1) The Founder of Sociology, Auguste Comte.
(2) Nature and Nurture, or Heredity and Opportunity.
(3) The Increase and Diffusion of Knowledge.
(4) Social Salvation by Faith,—an Analysis of Kidd's "Social Evolution."

Summer; C.

7. Public Lectures by Miss Addams. During the week beginning August 12, Miss Jane Addams, the founder and head resident of Hull House Social Settlement, Chicago, will deliver nine lectures, as follows:

(1) Social Obligations of Citizenship.
(2) The Social Theories of Count Tolstoy.
(3) The Non-resistance of Tolstoy *versus* the Non-resistance of Jesus.
(4) English and American Social Settlements.
(5) Ethical Survivals in the Personal Conduct of Count Tolstoy.
(6) Ethical Survivals in the Management of Municipal Politics.
(7) Ethical Survivals in the Efforts of Charitable Organizations.
(8) Ethical Survivals in the Development of the Labor Movement.
(9) Ethical Survivals in the Experiments of Model Employers.

Summer; C.

8. Public Lectures by Professor Zueblin. Professor Charles Zueblin, of the University of Chicago, will give four lectures, August 20-22, as follows:

(1) The Higher Life of London (illustrated with slides).
(2) Thomas Hill Green and Political Ethics.
(3) Social Morality.
(4) Education and Culture. Summer; C.

9. Public Lectures by President Andrews. President E. Benjamin Andrews, of Brown University, will give at least two lectures, July 31, as follows:

(1) Zacchæus.
(2) Daniel. Summer; C.

Economics.

President Raymond and Mr. ——, assisted by special lecturers.

1. Historical Introduction to Economics. A course in Economic History, designed to furnish a basis for the study of economic principles. The aim is to familiarize the student with the main facts in the development of modern industrial society before he begins to theorize about them. Gibbins' "Industrial History of England" will be used as a guide, with supplementary assigned readings. Fall, 9.00.

2. Principles of Economics. An exposition of the fundamental laws of Political Economy. This is an elementary course, prerequisite to all advanced work in Economics. Ely's "Outlines of Economics," supplemented by lectures and assigned readings in the library.

Summer, Winter, 9.00; 10 S.

3. History of Economic Thought. A sketch of the development of the science of Economics, from the Greeks to the present day. The different schools of economic thought are considered, and special attention is given to the views of the so-called classical economists,—Adam Smith, Malthus, Ricardo, and John Stuart Mill. Ingram's "History of Political Economy," supplemented by assigned readings from the works of the authors studied. Prerequisite, Economics 2.

Spring, 9.00.

4. Scope and Method of Economics. A course on the character of Economic Science; its relations to other departments of study; methods pursued in economic investigations. Keynes' "Scope and Method of Political Economy." Prerequisite, Economics 3.

Mr. ——. Fall, 10.30.

5. Money and Banking. This course explains the nature and functions of money, and traces its historical evolution; the different views as to the relation between the money supply, or the monetary policy of government, and the stability of prices, between the money supply and commercial prosperity, and their relation to the question of the obligations between debtor and creditor. The theories of bimetallism,

monometallism, independent free coinage, and paper fiat money will be examined, and several contemporaneous types of banking systems will be studied, including the scheme for a postal savings bank.

Dr. Hamilton, half course, Mondays to Saturdays, July 11 to August 12, 11.30; 10 P.

Mr. ——, full course. Winter, 10.30.

6. Industrial Problems. This course will treat of questions arising out of the relations between labor and capital, and will include discussions of such subjects as industrial arbitration and conciliation, the sliding scale of wages, the profit-sharing scheme, and co-operation.

Dr. Hamilton, half course, Mondays to Saturdays, July 11 to August 12, 3.00; 10 P.

Mr. ——, full course. Spring, 10.30.

Political Science.

MR. FAST.

1. Outlines of Civil Government. An elementary course in district, county, municipal, and state government in West Virginia, and in colonial, state, and federal government in the United States, required for admission to all courses. This course will not count toward any college degree. Lectures, prescribed reading, and quizzes.

Spring, 10.30; 4 P.

2. Civil Government in West Virginia. Introductory to this course will be a series of lectures and discussions on the types of local government in the several states, in the order of their historical development, with some reference to their origin; following this, the whole machinery of government in the state will be outlined and analyzed in its workings under the constitution and statutes. Designed primarily for teachers. Summer, 11.30; 4 P.

3. Civil Government in the United States. A course with special reference to the origin of types of local government in the United States, embracing an outline of state and federal government. Two pieces of written work, prepared from material in the library, will be required: (a) A phase of colonial government; (b) a phase of local government. Fiske's "Civil Government in the United States." Course 1 or 2 is required for admission. Fall, 11.30; 4 P.

4. Comparative Constitutional Government. A comparative study of Greek, Roman, and Teutonic polity, of the constitutions of Great Britain, France, Germany, Switzerland, and other leading states of the world, and of the trend in the development of constitutional government. Open to advanced students only. Woodrow Wilson's "The State." Summer, 10.30; 7 P.; Fall, 10.30; 4 P.

5. The Federal Government of the United States. A study of the workings of the government and politics of the United States, including a summary of government in general with reference to American conditions. There will be lectures, readings from references, and three special pieces of written work: (a) a study of political methods; (b) the actual workings of some department of the national government; (c) the actual workings of some part of a state or municipal government. Prerequisites, Political Science 3, or American History 2, 3, or 4. Bryce's "The American Commonwealth;" Hart's "Revised Suggestions." Spring, 11.30; 4 P.

Law.

PROFESSOR JOHNSON.

1. Constitutional Law. Winter, 9.00; 14 U.

2. International Law. Spring, 8.00; 14 U.

European History.

ASSISTANT PROFESSOR SANDERS.

The same general method is pursued in all the courses offered in this department. The subject is developed by means of lectures, assigned readings, written reports, and oral discussions. Courses 2, 3, 4, and 5, in connection with the course in Anthropology given in the department of Sociology, are designed to present an outline of the development of human culture.

In each of these courses a chronological outline of the life of the people under discussion, during successive periods, is given in the form of lectures, generally at the beginning of each week, and these are followed by a more detailed study, first, of the development of the social organization as it shows itself in the (a) political and (b) religious institutions of the people, and in their (c) economic life and (d) educational ideals, and, secondly, of the development of the human mind as it shows itself in philosophy and pure science. Finally, attention is directed to the art (architectural, plastic, pictorial, and literary) in which the attainments and aspirations of the people have found expression.

1. General History. This course is required for admission to college. No credit is given for it toward a degree, but it is offered by this department for the benefit of those who have not had its equivalent elsewhere, and for teachers who desire to strengthen their work on this subject. Sheldon's "Studies in General History."

Summer, Fall, 10.30; 4 P.

2. Grecian History. This course is introduced by a glance at the civilization of the Tigris-Euphrates valley, of the Nile valley, and of the Phœnicians and their kinsmen, the Jews, and then proceeds to trace the development of the life and thought of the Greek people, as

affected by their natural environment and by these earlier civilizations, down to the fall of Grecian political independence before Rome and the fall of Greek philosophy before Christianity. An earnest endeavor is made to bring the student to see for himself in what the great contribution of Greece to civilization consists.

Summer, 3.00; Fall, 8.00; 4 P.

3. The Rise and Fall of the Roman Empire. This course traces the development of the Roman state down to the fall of the republic; the rise of Christianity; the Roman Empire and the Christian church; the subversion of the Western empire by the Teutonic barbarians; the rise of Mohammedanism and its spread into Southern Europe, and the destruction of the Eastern empire and the fall of Constantinople before the Moslems. It is hoped that the student will be led to recognize Rome's great contribution to civilization in the development of the idea of law and order as instituted for all mankind. Winter, 8.00; 4 P..

4. Medieval History: The Rule of the Teuton. This course begins with a study of the primitive life and institutions of our Teutonic ancestors, and then, taking the career of the Frankish tribes as the central thread of the story, follows the history of Catholic Christian Europe down to the Renaissance. Summer, 8.00; Fall, 11.30; 4 P.

5. Modern History. This course begins with the Renaissance and brings the history of European civilization down to our own day, treating of the development of art, literature, and science; the extension of commerce and maritime adventure and the colonization of the new world; the Reformation in religion, philosophy, and education; the culmination of political absolutism, and the succeeding political revolution; the industrial revolution which ushered in the present century, and the new outlook upon life which results from present political, religious, and economic conditions and intellectual culture.

Winter, 11.30; 4 P.

6. The History of England to the Accession of the Tudors.

Fall, 1899.

7. The History of England from the Tudor Period to the Present Time. Winter, 1900.

8. History of Educational Theories and Institutions. This course is introduced by a glance at education among primitive peoples, followed by a brief but careful study of education among the Greeks and among the Romans, and an attempt to point out the effect upon our half-civilized ancestors of the conflict between the classical ideal in education and the educational ideal of the early Christian church as this conflict worked itself out in mediæval culture. Attention is then directed to the Renaissance and to the educational theories and practices of modern times. Summer, 1899.

American History.

Mr. Fast.

1. Outlines of United States History. A general course of narrative and political history required for admission to all other courses in History. No credit will be given upon any college degree. Fiske's "History of the United States." Winter, 10.30; 4 P.

2. American History. A general survey, with emphasis on the political and constitutional history of the United States. The course will embrace lectures; parallel readings from sources and secondary authorities; weekly written papers on the subject of preceding lectures, and a set of two special written reports worked up from material in the library: (a) a bibliography of some public man, and (b) some feature of the historical geography of a state. The course is designed for teachers and advanced students, and presupposes some knowledge of the matters treated. "Epochs of American History" (three vols.); Hart's "Revised Suggestions on the Study of the History and Government of the United States." Summer, 9.00; 4 P.

3. The Colonial Period (1492-1789). Special emphasis will be laid on political and constitutional history during this period, but with some reference to social and economic conditions. Lectures, reading of selected references to sources and secondary authorities, weekly written papers, and special written work. Designed for Juniors and advanced students. Volumes I. and II., "Epochs of American History." Fall, 9.00; 4 P.

4. The National Period (1789-1889). Special emphasis will be laid on political and constitutional history during this period, but with some reference to social and economic conditions. Lectures and special written work in historical composition based on original investigation of sources in the library. Open to Juniors and advanced students. Volumes II. and III., "Epochs of American History." Spring, 9.00; 4 P.

20. Seminary in American History. The constitutional and political history of the United States will be studied from the sources, combined with lectures and required reading in secondary authorities. Open to graduate students, and others by permission. Weekly: Fall, 1899; Winter, 1900.

Greek Language and Literature.

Professor Woolery and Mr. ——

All students taking the course leading to the degree of Bachelor of Arts are required to take three courses in Greek, three courses in Latin, and three additional courses in Greek or Latin, and those seeking the degree of Bachelor of Philosophy are required to take three courses in Latin or Greek.

The student is not allowed to lose sight of the fact that the study of Greek is profitable as a comparative study; by constantly comparing its construction with that of his own vernacular he is rendered more stable in the fundamentals of English grammar. A faithful and sympathetic translation of Greek into idiomatic, elegant English is considered a test of attainments. Sight translations are often employed to get the passion and manner of Greek thought. Attention is given to history, scansion, rhetoric, philosophy, customs, and religion of the Greeks. Among other things the attempt is made to give the student the different shades of meaning of synonyms, to show him the delicacy and power of the language, to imbue him with its genius, and to instill in him an enthusiasm for what is best in Greek literature by pointing out the elements of greatness in its immortal models, in the belief that this will be to him an inspiration and a standard of what is best in any literature.

Goodwin's Greek Grammar and Liddell and Scott's Lexicon are used in all courses. In addition to prescribed collateral work in all courses frequent citations are made to books in the University library.

1. Xenophon's Symposium. One year of Greek is required for admission to this course. "Xenophon's Symposium," by Winan.

Summer, 8.00; 8 P.

2. Xenophon's Anabasis (Books II, III and IV) and Prose Composition. A drill in forms and syntax is given, and, in general, a fuller knowledge of the grammar is acquired. White's "First Greek Book," and the first book of Xenophon's Anabasis, or an equivalent, are required for admission to this course. "Xenophon's Anabasis," by Goodwin; "Prose Composition," by Pearson. Fall, 8.00; 8 P.

3. Lysias' Orations and Prose Composition (continued). The elements learned in composition are impressed on the memory in the orations, where more time is given to the simplicity and perfection of periods. "Lysias' Orations," by Stephens. Prerequisite, Greek 2.

Winter, 8.00; 8 P.

4. Homer's Iliad or Odyssey (Books I, II and III), and Homeric Verse. All the text is read metrically, and passages are memorized. Etymology and Mythology receive special attention. Seymour's "Iliad." Collateral reading: Jebb's "Introduction to Homer;" Gladstone's "Time and Place of Homer." Prerequisites, Greek 2 and 3.

Spring, 8.00; 8 P.

5. Plato's Apology and Crito. Greek philosophy is studied in this connection. The Apology and Crito, by Dyer. Collateral reading: Mitchell's "A Study of Greek Philosophy." Prerequisites, Greek 2 and 3. Fall, 10.30; 8 P.

6. Demosthenes' De Corona or Philippics. Stress is laid upon correct use of synonyms, Greek rhetoric and oratory. Frequent sight translating, to catch the spirit of the orator. "Demosthenes' De

Corona," by Tyler. Collateral reading: Cicero on Oratory and Orators (translated). Prerequisites, Greek 2 and 3. Winter, 10.30; 8 P.

7. Sophocles' Antigone or Euripides' Iphigenia Among the Taurians. The poetical beauty and literary finish of the production are made prominent. "The Antigone of Sophocles," by D'Ooge, or "Euripides' Iphigenia Among the Taurians," by Flagg, supplemented by "The Tragic Drama," by Haigh. Prerequisites, Greek 2 and 3. Spring, 10.30; 8 P.

8. Lucian's Shorter Dialogues. Those who have had two years or more of Greek are eligible to membership in this course. "The Dialogues of the Dead" and other short dialogues will be read. "Selections from Lucian," by Williams. Summer, 10.30; 8 P.

9. Lucian's Longer Dialogues. Besides a study of Greek religion and mythology in connection with these satires, considerable time is given to sculpture. Williams' "Selections from Lucian;" Gardiner's "Greek Sculpture." Fall, 1898, 11.30; 8 P.

10. Herodotus and Thucydides. Selections. Emphasis is placed on Greek History. "Herodotus and Thucydides, Selections," by Mather. Myer's "History of Greece" is read in connection with the native historians. Fall, 1899, 11.30; 8 P.

11. New Testament Greek. Luke's Gospel and I. and II. Corinthians. Criticism on construction; a comparison of Hellenistic and Classical Greek. Westcott and Hort. Winter, 1899, 11.30; 8 P.

12. New Testament Greek. John's Gospel and the Acts of the Apostles. In the translation, pure idiomatic English of the nineteenth century is required. Westcott and Hort. Winter, 1900, 11.30; 8 P.

13. Aristophanes' Clouds. "The Clouds of Aristophanes," by Humphreys. "Ancient Greek Literature," by Murray, is read with this comedy. Spring, 1899, 11.30; 8 P.

14. Modern Greek. Vincent and Dickson's text is used, newspapers and magazines, and reports of archæological researches in Greece. Prerequisite, six courses in Greek. Spring, 1900, 11.30; 8 P.

15. Greek Life and Literature. Synoptic lectures. A course of ten lectures of a semi-popular character, to an appreciation of which a knowledge of the Greek language is not necessary. Summer, Tuesdays, 8.00 P. M.; C.

Latin Language and Literature.

PROFESSOR DOUTHAT.

In all courses in this department frequent illustrations of Roman life are given by lantern views and lectures. Translations both oral and

written are required from English into Latin, as well as from Latin into English. In the courses in poetry attention is given to scanning. In the earlier courses particular stress is laid upon the collection of a working vocabulary.

1. Virgil's Eclogues and Georgics. Chase and Stuart's "Virgil's Eclogues and Georgics." Summer, 11.30; 21 U.

2. Horace's Odes. Latin writing and the study of synonyms. Chase and Stuart's "Horace's Odes and Epodes." Fall, 11.30; 21 U.

3. Aulus Gellius' Stories. Frequent sight reading. Latin writing and conversation, and synonyms. Knapp's "Stories from Aulus Gellius;" Arrowsmith and Knapp's "Viri Romæ" for sight reading. Winter, 11.30; 21 U.

4. Cicero's De Amicitia and De Senectute. Latin writing and conversation, and synonyms. Bennett's "De Amicitia and De Senectute;" Miller's "New Latin Composition." Spring, 11.30; 21 U.

5. Livy, Book XXI. Chase and Stuart's "Livy;" Peck and Arrowsmith's "Roman Life in Prose and Verse;" Miller's "New Latin Composition." Summer, 9.00; 21 U.

6. Horace's Satires and Epistles. Chase and Stuart's "Horace;" Peck and Arrowsmith's "Roman Life in Prose and Verse;" Miller's "New Latin Composition." Fall, 9.00; 21 U.

7. Cicero's Letters. Chase and Stuart's "Letters of Cicero;" Peck and Arrowsmith's "Roman Life in Prose and Verse;" Miller's "New Latin Composition." Winter, 9.00; 21 U.

8. Cicero's De Officiis and De Oratore, the first for sight reading and translation at sight, the second for regular class study. Harper's "Latin Texts Without Note or Comment;" Tomlinson's "Selections from Latin Authors;" Miller's "New Latin Composition." Spring, 9.00; 21 U.

9. Early Latin. Text-books: Allen's "Remnants," Merry's "Fragments," Kelsey's "Fifty Topics in Roman Antiquities;" books of reference: Egbert's "Latin Inscriptions," Johnston's "Latin Manuscripts." Summer, 8.00; 21 U.

10. Plautus: Captivi, Trinummus and Rudens. Text-books: Harrington's "Plautus," Kelsey's "Fifty Topics in Roman Antiquities;" books of reference: Egbert's "Latin Inscriptions," Johnston's "Latin Manuscripts." Fall, 8.00; 21 U.

11. Juvenal. Selected Satires. Text-books: Lindsay's "Juvenal," Kelsey's "Fifty Topics in Roman Antiquities;" books of reference: Creighton's "History of Rome," Gibbon's "Decline and Fall of the Roman Empire." Winter, 8.00; 21 U.

12. Pliny's Letters. Platner's "Select Letters of Pliny the Younger;" Middleton's "Companion to Latin Authors." Spring, 8.00; 21 U.

13. Tacitus. Germania and Agricola. Allen's "Germania and Agricola;" Clement's "Latin Selections;" Harper's "Classical Dictionary;" Cape's "Early Empire." Summer, 10.30; 21 U.

14. Quintilian. Tenth and twelfth books. Belser's "Selections from tenth and twelfth Books of Quintilian;" Clement's "Latin Selections;" Harper's "Classical Dictionary;" Cape's "Early Empire." Fall, 10.30; 21 U.

15. Seneca. Select Letters. Winslow's "Select Letters of Seneca;" Knapp's "Martian" for sight reading; Teuffel's "History of Roman Literature." Winter, 10.30; 21 U.

16. Petronius. Special study of late Latin in the "Sermo Plebeius" as an introduction to the Romance Languages and Comparative Philology. Water's "Cena Trimalchionis;" Cooper's "Word Formation in the Roman Sermo Plebeius." Spring, 10.30; 21 U.

Romance Languages and Literatures.

PROFESSOR HARVEY, ASSISTED BY SPECIAL LECTURERS.

1. Elementary French. For beginners. Grammar, reading, and as much practice in pronunciation and conversation as possible. Whitney's Grammar, Super's Reader; selections from modern authors. Dr. McKenzie, Summer, 8.00, 7 P.; Fall, 11.30.

2. Elementary French. A continuation of course 1, with the use of different texts. Winter, 11.30.

3. Elementary French. A continuation of course 2, with the use of different texts. Spring, 11.30.

4 Intermediate French. For students who have had one year of French or more. Reading and composition, with as much practice in conversation as possible. The first text read will be Racine's "Athalie" (edition published by Heath & Co.). Dr. McKenzie, Summer, 11.30, 7 P.; Fall, 10.30.

5. Intermediate French. A continuation of course 4, with the use of different texts. Fall, Winter, 10.30.

6. Intermediate French. A continuation of course 5, with the use of different texts. Winter, Spring, 10.30.

7. Italian. For beginners. Grammar and reading. It is desirable that students who take this course should have some knowledge of Latin or French. Grandgent's Italian Grammar; selections from modern authors. Dr. McKenzie, Summer, 1898, 9.00, 7 P.; Fall, 1899, 8.00.

8. Italian. A continuation of course 7. Winter, 1900, 8.00.

9. Italian. A continuation of course 8. Spring, 1900, 8.00.

10. Elementary Spanish. For beginners. Grammar and reading, with as much practice in pronunciation and conversation as pos-

sible. Students who take this course should have some knowledge of Latin or French. Fall, 9.00; 7 P.

11. Spanish. A continuation of course 8. Winter, 9.00; 7 P.

12. Spanish. A continuation of course 9. Spring, 9.00; 7 P.

20. Seminary in Romance Languages. For qualified students advanced work will be arranged. The subject for the summer quarter, 1898, will be the French Drama of the Seventeenth Century. The work will be done chiefly by private study, under the direction of the instructor, with meetings of the Seminary once a week. Credit will be given for this work as a half course or a full course, each quarter, according to the amount of work done by each student.

Germanic Languages and Literatures.

PROFESSOR HARVEY AND ASSISTANT PROFESSOR TRUSCOTT, ASSISTED BY SPECIAL LECTURERS.

1. Elementary German. A course for beginners, the object being to acquaint the student with the elements of the grammar, to give him a reading knowledge of easy prose and as much practice in pronunciation and conversation as possible. Thomas' Grammar, Joynes' Reader, Harris' Prose Composition. Summer, Fall, 9.00; 22 U.

2. Elementary German. A continuation of course 1. Hatfield's "Materials for German Composition;" Storm's "Immensee." Fall, 11.30; Winter, 9.00; 22 U.

3. Elementary German. A continuation of course 2. Winter, 11.30; Spring, 9.00; 22 U.

4. Intermediate German. Practice in writing German and translation of English prose into idiomatic German. Reading material will embrace selections from authors of the classic and modern period. A part of the time will be devoted to rapid and sight reading. The purpose is to increase the student's vocabulary and familiarize him with the common idioms and constructions by copious reading of German prose of average difficulty. Summer, Fall, 8.00; 22 U.

5. Intermediate German. A continuation of course 4, with the use of different texts. Fall, Winter, 8.00; 22 U.

6. Intermediate German. A continuation of course 5, with the use of different texts. Winter, Spring, 8.00; 22 U.

7. Scientific German. Intended for students of science who have had at least a year of elementary German. The purpose is to teach students to read at sight scientific articles in German. Gore's "German Science Reader," Cohn's "Ueber Bakterien." Summer, 10.30; 22 U.

8. Advanced German. Reading and interpretation of Schiller's "Wallenstein," Lessing's "Nathan der Weise." Study of the history of

German literature; Kluge's "Geschichte der deutschen Nationalliteratur;" Lueben's "Auswahl der deutschen Literatur." Writing of German themes. Fall, 10.30; 22 U.

9. Advanced German. A continuation of course 8, with the use of different texts. Winter, 10.30; 22 U.

10. Advanced Scientific German. Spring, 10.30; 22 U.

11. Anglo-Saxon. Open to advanced students in English or German. An introduction to the historical study of the English language. Translation of Anglo-Saxon prose; study of the word-forms with special reference to modern English. Bright's "Anglo-Saxon Reader." Summer, 11.30; 22 U.

12. Advanced Anglo-Saxon. Prerequisite, course 11. Spring, 11.30; 22 U.

13. The First Two Centuries of Modern German Literature. A series of six lectures on the struggles of German literature in the times of the Reformation. The work given will be of a popular nature, interesting alike to students of history and literature, and will be supplemented by reading and references.

Professor Ford. First term, Summer; Wednesdays, 8.00 P. M.; C.

14. Modern German Literature. A series of six lectures on some of the latest great writers of Germany, intended to introduce students to the various movements which have come into German literature within the last quarter-century.

Professor Ford. First term, Summer; Fridays, 8.00 P. M.; C.

Courses 13 and 14 together will count as a one-third course.

English Language and Literature.

PROFESSOR ARMSTRONG, MR. WHYTE, AND MR. ——, ASSISTED BY SPECIAL LECTURERS.

1. Preliminary Rhetoric and Composition. The class-room work is divided equally between theory and practice. Short themes four or five times a week. Criticism and discussion in class. Hill's "Elements of Rhetoric and Composition." Mr. Whyte. Fall, 11.30.

2. Rhetoric and Composition. Advanced course. It is the purpose of this course to ground students more thoroughly in the principles of style and invention. That skill in the discovery and use of these principles may be acquired, examples from classic prose selections will be studied, and themes will be written. Prerequisite, English 1.

Dr. Antrim, Summer, 11.30, 20 U.; Mr. Whyte, Winter, 11.30.

3. Rhetoric and Theme Writing. Continued training in the theory of Rhetoric. Themes affording practice in narration, description, exposition, etc., will be required frequently. Problems of literary form will be discussed and typical passages from standard authors will be read and criticised. Genung's "Practical Rhetoric." Prerequisite, English 1 and 2. Mr. Whyte. Spring, 11.30.

4. Development of the English Language. History and structure of the English language; sources of its vocabulary; history of word-formations and inflections; exercises in etymology. Recitations, lectures, and reports. Sweet's "Anglo-Saxon Primer," Low's "The English Language," "Trench on Words." Prerequisite, English 1.

Fall, 10.30; 20 U.

5. General Survey of English Literature. This course is intended to be an introduction to the study of literature. Its purpose is to give the student a conception of the nature of literature, a general knowledge of the great field of literature, and a definite knowledge of a few English classics. Recitations and critiques on assigned readings. Brooke's "History of English Literature," and copies of complete masterpieces. Prerequisite, English 1. Fall, 9.00; Spring, 11.30; 20 U.

6. History of English Literature. The object of this course is threefold: (1) to give a general idea of English literature from the earliest times to the present day; (2) to make a careful study of the influences and ideals that characterize each period, and (3) to lay especial stress on epoch-making literary monuments, beginning with Beowulf, that a more or less intimate knowledge of a number of masterpieces may be gained. The mechanical element which enters into a study of literature and which often tends to destroy the interest naturally aroused by such a study will be so far as possible eliminated. The course will be based on Brooke's "History of English Literature," supplemented by frequent lectures. Prerequisite, English 1.

Dr. Antrim. Summer, 8.00; 20 U.

7. English Literary Criticism. A study of the leading principles of criticism, with practical exercises in the criticism of representative specimens of the various kinds of literature. Recitations, lectures, critiques on assigned readings. Prerequisites, English 1 and 5.

Fall, 8.00; 20 U.

8. Nineteenth Century Literature. A survey of the chief writers of the nineteenth century in England, with a critical study of a few masterpieces of the representative writers. Recitations, lectures, and critiques on assigned readings. Saintsbury's "History of Nineteenth Century Literature," and copies of complete masterpieces. Prerequisites, English 1 and 5. Winter, 10.30; 20 U.

9. American Literature. A brief outline of its historical development, and study of selected works of representative authors. Recitations, lectures, and critiques on assigned readings. Brander Matthews' "Introduction to American Literature," and copies of complete masterpieces. Prerequisites, English 1 and 5. Spring, 8.00; 20 U.

10. Shakespeare and the English Drama. A review of the English Drama from the Miracle and Mystery plays to the Elizabethan Drama, inclusive, will be followed by a study of Shakespeare's dramas in chronological order. The basis of the course is Boas' "Shakespeare

and His Predecessors." Frequent lectures will be given, and one play will be critically read. Prerequisites, English 1 and 5.

Dr. Antrim. Summer, 9.00; 20 U.

11. Representative Plays of Shakespeare. The interpretation of representative plays. Recitations, class readings, and reports on collateral readings. Boas' "Shakespeare and His Predecessors," and annotated editions of the plays read in class. Prerequisites, English 1 and 5. Fall, 11.30; 20 U.

12. Shakespeare's Tragedies. A critical study of Shakespeare's tragedies as to sources, text, and literary interpretation. Recitations, class readings, and critiques. Annotated editions of plays read in class. Prerequisites, English 1 and 5. Winter, 11.30; 20 U.

13. Browning. The life and works of Browning, and the influence he has had on his age. The most important of his shorter poems, and one of his longer poems, will be interpreted, but the class will be required to familiarize themselves with all of Browning's poetry. Corson's "Introduction to Browning." Prerequisites, English 1 and 5.

Dr. Antrim, Summer, 10.30;
Professor Armstrong, Spring, 9.00; 20 U.

14. Tennyson. Studies in the sources, form, and literary interpretation of Tennyson's poems. Recitations, class readings, and critiques. Prerequisites, English 1 and 5. Winter, 9.00; 20 U.

15. The Bible as Literature. A study of the English Bible as literature; discussion of the literary form and interpretation of some of its masterpieces. Recitations, lectures, class readings. Prerequisites, English 1 and 5. Spring, 10.30; 20 U.

16. Chaucer. The "Prologue" will be read as the basis for a study of the development of the language. The development of English speech-sounds will be traced from the Old English down into the modern English. An introduction to the study of Comparative Philology will be given by a constant comparison of English with other members of the Germanic family. Due attention will be paid to Chaucer's method of handling meter. Morris' edition of the "Prologue," containing also the "Knight's Tale," etc., is recommended.

Dr. Read. Half course. First term, Summer, 3.00; 20 U.

Mathematics.

Professor Stewart and Mr. ——.

1. University Algebra. Binomial Theorem. Theorem of Undetermined Coefficients. Theory and Use of Logarithms. Logarithmic and Exponential Series. Theory of Equations. Solution of Higher Numerical Equations. Wells' "University Algebra." Prerequisite, Higher Algebra through Quadratics. Summer, 10.30;
Fall, first section 10.30, second section 3.00;
Winter, 9.00; 3 P.

2. Solid Geometry. Wells' "Solid Geometry." Prerequisite, Wells' "Plane Geometry" or its equivalent.

Winter, first section 10.30, second section 3.00;
Spring, 9.00; 3 P.

3. Plane and Spherical Trigonometry. Wells' "Plane and Spherical Trigonometry," revised edition, with tables. Prerequisites, Mathematics 1 and 2. Summer, 11.30;
Fall, 9.00;
Spring, first section 10.30, second section 3.00; 3 P.

4. Analytic Geometry. Cartesian Co-ordinates. Polar Co-ordinates. Conic Sections. Higher Plane Curves. Nichol's "Analytic Geometry." Prerequisites, Mathematics 1, 2, and 3.

Summer, Fall, 8.00; 3 P.

5. Differential Calculus. Differentiation of Algebraic and Transcendental Functions. Expansion of Functions into Series. Evaluation of Indeterminate Forms. Maxima and Minima of Functions of one or of several Independent Variables. Curvature. Singular Points. Asymptotes. Envelopes. Order of Contact. Osborne's "Differential and Integral Calculus." Prerequisites, Mathematics, 1 to 4, inclusive.

Winter, 8.00; 3 P.

6. Integral Calculus. Application to Plane Curves. Rectification of Curves. Areas of Curves. Surfaces and Volumes of Revolution. Double and Triple Integrals. Area of any Surface. Volume of any Solid. Hyperbolic Functions. Osborne's "Differential and Integral Calculus." Prerequisites, Mathematics 1 to 5, inclusive.

Spring, 8.00; 3 P.

For courses in Applied Mathematics see announcements of the College of Engineering and Mechanic Arts, page 88 *et seq.*

COURSE 7. DESCRIPTIVE ASTRONOMY.—Students taking this course must have completed Courses 1, 2, and 3.

Fall quarter or Winter quarter. 9; 3 P.

Physics.

PROFESSOR HODGES AND MR. ——.

1. Elementary Physics. Required for admission to all courses. No credit for this course is allowed as college work; it is given for students who have not had its equivalent elsewhere. Recitations, supplemented by experiments and demonstrations. Prerequisite, Elementary Algebra. Carhart and Chute's "Physics."

Summer, Winter, 8.00; Spring, 11.30; 11 S.

2. General Physics. Mechanics, Sound, and Light. Lectures and recitations, accompanied by individual laboratory work, which, though elementary, is strictly quantitative. Required of candidates for Scientific and Engineering degrees. Prerequisite, Mathematics 3. Ames' "Theory of Physics."

Summer, Lectures, Monday, Wednesday, Friday, 9.00; 11 S.
Laboratory, Tuesday, Thursday, 2.00; 1 S.

Fall, Lectures, Monday, Wednesday, Friday, 10.30; 11 S.
Laboratory, Tuesday, Thursday, 1.30; 1 S.

3. General Physics. A continuation of course 2, including Heat, Electricity, and Magnetism. Students who have not taken course 2 may be admitted to this course, but course 2 should be taken first if possible. Prerequisite, Mathematics 3.

Fall, Lectures, Monday, Wednesday, Friday, 9.00; 11 S.
Winter, Lectures, Monday, Wednesday, Friday, 10.30; 11 S.
Laboratory, Tuesday, Thursday, 1.30; 1 S.

4. Experimental Physics. A laboratory course exclusively, consisting of elementary quantitative experiments. Intended to meet the requirements of a laboratory course in the Classical, Philosophical, and Modern Literature courses. Open to students who do not take courses 2 and 3. Sabine's "Laboratory Course in Physics." Prerequisite, Plane Trigonometry. Full course, Summer, 2.00; 1 S.
Full course, Summer, 2.00; 1 S.
May be taken in the Fall, Winter, and Spring quarters, one-third course each quarter, Mondays, Wednesdays, 1.30; 1 S.

5. Sound. Advanced theoretical work. Lectures and laboratory exercises. Prerequisites, Physics 2 and 3, Mathematics 6.

Half course. First term, Winter, 9.00; 11 S.

6. Light. Lectures and laboratory measurements. Prerequisites, Physics 2 and 3, Mathematics 6.

Half course. Second term, Winter, 9.00; 11 S.

7 Heat. Lectures on the theory of Heat, including Thermodynamics. Required of Engineering students. Prerequisites, Physics 2 and 3. Mathematics 6 must precede or accompany this course.

Half course. First term, Spring, 9.00; 11 S.

8. Electricity and Magnetism. Advanced theoretical work. Prerequisites, Physics 2 and 3. Mathematics 6 must precede or accompany this course. Half course. Second term, Spring, 9.00.
Summer, Monday, Wednesday, 10.30; 11 S.

9. Electrical Measurements. Advanced laboratory work. The student uses measuring instruments of precision, sensitive galvanometers, apparatus for accurate measurement of resistance, current, electromotive force, induction, magnetic properties of iron, etc. Carhart and Patterson's "Electrical Measurements." Prerequisites, Physics 8, Mathematics 6. Half course. Summer, Tuesday, Thursday, 10.30.
Spring, Monday, Wednesday, Friday, 1.30; 23 S.

10. Dynamos and Motors. The elements of the general theory of Dynamos and Motors. Lectures and laboratory work. Prerequisite, Physics 9.

Spring, Lectures, Monday, Wednesday, Friday, 10.30; 11 S.
Laboratory, Tuesday, Thursday, 1.30; 1 S.

11. Special Work. Students desiring to pursue any line of special work in the Department of Physics will be given opportunity to do so to the extent that the time of the instructors and the laboratory equipment will permit. Credit for such work will be allowed in proportion to the amount of work done.

Chemistry.

PROFESSOR WHITEHILL AND MR. ——.

1. Inorganic Chemistry. This course is designed for beginners, and serves as a general introduction to chemical methods and operations. It includes a systematic study of the laws of chemical combinations, the source, preparation, properties and compounds of the non-metallic elements and the principles and theories of chemical philosophy. Experimental lectures, laboratory work, and recitations.

Summer, 10.30; Fall, Spring, 9.00; 20 S.

2. Inorganic Chemistry. This course includes the study of the metallic elements, and special attention is paid to the application of Chemistry in Agriculture, Engineering, Medicine, and every-day life. Lectures, laboratory work, and recitations. Half course.

First term, Summer and Winter, 9.00; First term, Fall, 10.30; 20 S.

3. Organic Chemistry. This course includes the study of the more important organic compounds, together with the laboratory processes for the preparation of such compounds. Lectures, laboratory work, and recitations. Half course.

Second term, Summer and Winter, 9.00; Second term, Fall, 10.30; 24 S.

4. Qualitative Analysis. A laboratory course designed for students who are familiar with the elementary principles of Chemistry. It includes the preparation of the more important gases and salts, and the detection of the elements and their compounds.

Half course, first term, Summer, 2.00.

One-third course, Fall, Tuesdays, Thursdays, 1.30; 22 S.

5. Elementary Quantitative Analysis. This course includes a small number of simple gravimetric, volumetric and electrolytic determinations, together with the study of the operations involved. Laboratory course. Half course, second term, Summer, 2.00; 22 S.

One-third course, Winter, Tuesdays, Thursdays, 1.30; 20 S.

6. Analysis of Coal, Coke and Water. This course is designed especially for Engineering students, but is open to others who have the necessary preliminary training. Laboratory course. One-third course. Spring, Tuesdays, Thursdays, 1.30; 21, 22 S.

7. Quantitative Analysis. This course is designed for students who expect to make Chemistry a specialty. It includes exercises in determining the composition of ores, minerals and various technical compounds. Instruction is also given in assaying, gas analysis, and in the analysis of iron and steel. Exercises are selected to give as wide

an acquaintance as possible with laboratory methods. One-third course each quarter.

Summer, Fall, Winter, Spring, Mondays and Wednesdays, 1.30; 21, 22 S.

8. Special Work. Chemistry offers a wide field for investigation. Special work in any of the various departments of the science may be taken in the laboratory under the direction of the instructor, and credit will be given in proportion to the amount of work accomplished.

21, 22 S.

For courses in Agricultural Chemistry see announcements of the College of Agriculture on subsequent page.

Geology and Mineralogy.

PROFESSOR BROWN AND MR. ——.

1. Physical Geography. An elementary course for which no credit is given toward a college degree, but which must be taken before students are admitted to other courses in this department, unless they have had its equivalent elsewhere. Fall, 8.00; 30 S.

2. Physiography. The earth as a planet; the atmosphere; the distribution of temperature; winds; geographic distribution of plants and animals; the ocean. Open to any University student. Recitations and lectures. Tarr's "Physical Geography." Spring, 10.30; 30 S.

3. Geographic Geology. The crust of the earth; river valleys; plateaus and mountains; man and nature; the economic products of the earth; meteorological instruments and methods. Open to any University student. Tarr's "Physical Geography." Summer, 10.30; 30 S.

4. General Geology. A general course in dynamic and structural Geology. Economic applications of Geology will receive special attention. Numerous excursions will be made. The University is situated in a mining region, and within five miles of the western fold of the Appalachian mountains; the advantages for the practical study of Geology are therefore almost unequaled. Recitations, lectures and field work. LeConte's "Elements of Geology." Prerequisites, Chemistry 1, Physics 2. Fall, 11.30; Spring, 9.00; Summer, 1899, 8.00; 30 S.

5. Paleontology. The progress and development of plants and animals through the different ages of the earth. For illustration in this subject the University has an equipment of many thousands of fossils, casts and models. Recitations and lectures. LeConte's "Elements of Geology." Prerequisites, Biology 4 and 8.

Winter, 11.30; 30 S.

6. Economic Geology. Common rock and vein-forming minerals; Physical Geography and Geology of the United States; the origin of ore deposits; mining terms and methods; metalliferous deposits.

Recitations and lectures. Tarr's "Elements of Economic Geology." Prerequisite, Geology 4. Spring, 11.30; 30 S.

7. Advanced Economic Geology. The fuels—coal, oil and natural gas—soils, clays and fertilizers, precious stones and building stones. The University is in the midst of a great coal-producing region, while oil and gas wells are within easy reach. Recitations and lectures. Tarr's "Elements," and Merrill's "Stones for Building and Decoration." Prerequisite, Geology 6. Summer, 11.30; 30 S.

8. Mineralogy. Crystallography; physical qualities of minerals; description of minerals consisting of basic elements to the silicates. The University has a good collection of minerals for practical instruction. Open to all University students. Recitations, lectures and practical determinations. Dana's "Manual of Mineralogy."

Summer, Fall, 9.00; 30 S.

9. Advanced Mineralogy. The silicates and hydrocarbon compounds and their determination. Dana's "Manual of Mineralogy."

Winter, 9.00; 30 S.

Biology.

PROFESSOR HARTIGAN AND MR. RUMSEY, ASSISTED BY SPECIAL LECTURERS.

1. Elementary Physiology. Required for admission to all courses. No credit is given toward a college degree for this course.

Fall, 9.00; 30 U.

2. Elementary Botany. Required for admission to all courses. No credit is given toward a college degree for this course. Its aim is to awaken in the student's mind an interest in plants—to lead him to see the things he looks at, and to draw proper conclusions from what he sees. The objects which are made the basis of the instruction are all taken from the plants with which everyone comes in frequent contact. Recitations and demonstrations.

Mr. Rumsey. Spring, 8.00; lecture room, A.

3. General Biology. This course serves either as an introduction to other biological work, such as Zoology, Botany and Physiology, or as a course complete in itself. It is designed to give the student general conceptions of what living organisms are, how they perform their various functions, and how they are related to one another. In short, the attempt is made to present the fundamental phenomena of animal and plant life. The work will consist of examinations in the laboratory of types representing the main groups of animals and plants, and lectures and recitations on the more general features of their anatomy, physiology and classification.

Mr. Hoag, Summer, 2.00-4.00;
Mr. ———, Fall, 10.30; 30 U.

4. Descriptive Botany. Description and nomenclature of plants.

Recitations and lectures on Plant Histology and the laws of tissue and organ formation. Wood's "Botanist and Florist."

Winter, 10.30; 30 U.

5. Field Botany. A course in practical analytical Botany. Sufficient time will be devoted to the text to gain a working knowledge of terms and structure. As much of the work as possible will be done in the field. Each student will make a herbarium of at least twenty-five specimens, with full analysis of each, including drawings as indicated on the analysis chart. The texts used are Wood, Kellerman and Gray.

Summer, Spring, 10.30; 30 U.

6. Structural Botany. Lectures on general Plant Anatomy and Physiology, with practical laboratory work in Vegetable Histology and Bacteriology. Members of the class are required to make bacteriological analysis of water and air. Fall, 8.00; 30 U.

7. Physiology. Human and Comparative Physiology. Lectures and practical laboratory work, supplemented by assigned reading in Flint's "Human Physiology," Yeo's "Manual" and the works of Kirke, Dalton, Landois and Sterling. Summer, Spring, 11.30; 30 U.

8. Zoology. Comparative and Systematic; the phenomena of tissue systems, their origin, specialization and functions. Some attention will be given to Embryology, the phenomena of protoplasm and organic evolution. Orton's "Comparative Zoology," supplemented by lectures and collateral reading in the works of Haeckel, Spencer, Darwin, Packard and Claus. Summer, 9.00; Winter, 8.00; 30 U.

9. Advanced Zoology. A continuation of Course 8. In this course instruction is given in the principles of microscopical technique, including the proper preparation, cutting, staining and mounting of the various animal tissues. Spring, 8.00; 30 U.

10. Human Anatomy. This course is particularly valuable for students intending to study Medicine and Surgery. The instruction is mainly by lectures and demonstrations, free use being made of the skeleton, cadaver, specimens, charts, models and manikins. Keene's edition of Gray's "Anatomy." Summer, 8.00; Fall, 11.30; 30 U.

11. Advanced Human Anatomy. A continuation of Course 10. Students are required to dissect at least three parts of the human body. Winter, 11.30; 30 U.

12. Histology. The student in this course will be taught first to prepare tissue for microscopical study, the various standard methods in technique being thoroughly given. After this a study will be made of vertebrate tissues, beginning with isolated cells and ending with sections of the various organisms.

Mr. Hoag. Half course. First term, Summer, 4.00-6.00; 30 U.

13. Bacteriology. This course is intended to meet the needs of three classes of students: first, those who wish a general course as an

end in itself; second, agriculturists; third, physicians and medical students. The technique of bacteriological methods will be presented in detail. Special attention will be given to Bacteriology in its relation to dairying, and to practical medical work.

Mr. Hoag. Half course. Second term, Summer, 4.00-6.00; 30 U.

14. Public Lectures by Mr. Hoag. In addition to the above courses, Mr. Hoag will deliver in Commencement Hall five public lectures untechnical and popular in character:

(1) Bacteria in Medicine and Agriculture.
(2) Some Great Naturalists.
(3) How Animals Develop from the Egg.
(4) The Relations Between Plants and Animals.
(5) Organic Evolution. Summer, C.

15. Plant Evolution. A series of five popular lectures from the paleontological standpoint, accompanied by stereopticon views illustrating the vegetation of all geologic epochs in the order of development, from the Silurian to the Pleistocene. Between July 18 and August 13. Dr. Lester F. Ward. Summer, C.

THE COLLEGE OF ENGINEERING AND THE MECHANIC ARTS.

Staff of Instruction.

The Faculty.

JEROME HALL RAYMOND, Ph.D., President of the University.

JOHN LINDSAY JOHNSTON, C.E., Professor of Civil and Mining Engineering.

WILLIAM SLEEPER ALDRICH, M.E., Professor of Mechanical Engineering and the Mechanic Arts.

FREDERICK LINCOLN EMORY, B.S., M.M.E., Professor of Mechanics and Applied Mathematics.

RUSSELL LOVE MORRIS, B.S.C.E., Instructor in Civil and Mining Engineering.

CLEMENT ROSS JONES, M.E., Instructor in Mechanical Engineering.

JAMES PRIMROSE WHYTE, B.A., Instructor in Foundry Practice.

RUFUS WEST, Assistant in Metal Working.

————————, Fellow in Civil Engineering.

————————, Fellow in Mechanical Engineering.

Other Instructors Giving Courses in this College.

ALEXANDER REID WHITEHILL, Ph.D., Professor of Chemistry.

JAMES SCOTT STEWART, M.S., Professor of Mathematics.

SAMUEL B. BROWN, A.M., Professor of Geology and Mineralogy.

ROBERT ALLEN ARMSTRONG, A.M., Professor of English.

THOMAS EDWARD HODGES, A.M., Professor of Physics.

Organization.

This College comprises the following departments:
Civil and Mining Engineering;
Mechanical Engineering and the Mechanic Arts;
Mechanics and Applied Mathematics.

The requirements for admission and graduation and the arrangement of the courses of instruction, and such other work as pertains to this College, are provided for by its Faculty, in conjunction with the University Faculty.

Equipment and Facilities for Instruction.

The chemical, metallurgical, physical, electrical, geological and photographic laboratories are located in Science Hall, as well as the geological museum and the civil engineering laboratory, instrument-room and drawing-room. In the Mechanical Building are located the lecture and recitation rooms of that department, as well as the wood-working and metalworking shops, the drawing and model rooms, the mechanical, steam, hydraulic and electrical engineering laboratories, and the electric-light and power plant of the University.

The engineering students have thus at their command a large and varied collection of apparatus and instruments, of tools and machinery, of stock and material, which is being judiciously increased from year to year. In the drawing-rooms are collections of models of bridges, furnaces, structures, mechanisms, engines, pumps, valves and valve gear; plaster casts and descriptive geometry models; sets of charts, State and Government maps, surveys, photographs, engineering specifications, drawings, tracings and blue prints.

In the workshops are bench and machine tools and workshop appliances for working wood and metal, with a selected variety of measures, gauges, small tools, stock and material.

The engineering laboratories are fitted out with standard gauges and measures, calculating and recording instruments, with apparatus and appliances for qualitative and quantitative experimental work in civil, mechanical, steam, hydraulic and electrical engineering. The boilers, triple-expansion engine, pumps and condensers, dynamos, motors and electrical machinery, as well as the motive-power machinery of the mechanical shops, have all been specially selected and arranged for experimental work in Mechanical and Electrical Engineering.

Samples of raw materials and manufactured products are collected, forming the nucleus of an engineering museum. The latest trade literature, catalogues and reports of the current commercial developments in engineering are kept in classified files for the students' reference.

The University Library has a thoroughly classified and indexed collection of the standard and latest books in engineering and the

allied sciences, complete bound sets of the transactions of several scientific and engineering societies, and current issues in bound volumes of the principal scientific and technical periodicals.

The regular and special courses offered by this College are designed to meet the requirements of the technical and professional lines of work leading to the respective certificates and engineering degrees indicated.

Methods of Instruction.

In the classroom instruction is given by lectures, combined with text-book study and recitations. Engineering problems and subjects are assigned to be worked out in the library or drawing-room, in the field, the shop or the laboratory. The several lines of work in any given study are co-ordinated so far as possible, as noted in schedules of this College. In this way time is economized. The student concentrates his attention, focalizing it upon the particular question, problem or project in hand. The classroom instruction is supplemented throughout by practical work in the field and drawing-room, shops and engineering laboratory. Visits of inspection to industrial establishments and power plants are made whenever it is possible to arrange for them.

The method of instruction in Manual Training and the Mechanic Arts is largely that of the shop-exercise system, by which the student is familiarized with the fundamental operations of constructive mechanics. Later on such instruction is combined with the work of construction of machine elements, tools and apparatus. Attention is given to the economics of time and material by use of the shop-order system in accounting for the same.

In engineering, drawing and designing the work is carried along with the study of actual typical details of structural elements, and, where possible, parallel with the construction of similar elements or exercises in the laboratories and mechanical shops. Frequent reference is made to models, to blue prints of engineering structures and to existing work in the institution or elsewhere. An opportunity is also afforded for the necessary graphical treatment of engineering problems arising in lectures and the classroom instruction of any quarter.

Lectures, mimeographed notes, collateral reading, conference work and sketching accompany all the practical lines of work.

In Experimental Engineering the students are required to make scientific observations, keep records of tests, facilitate deductions therefrom by the use of calculating instruments, tabulate and plot results and make reports upon the test in due form. Each member of the class is required to use and to become familiar with all the instruments and apparatus of any given course. The classes are divided into groups of three or four students and furnished with mimeographed

notes and forms. Observations are at once worked up and comparisons made with calculated and graphical results.

Requirements for Admission.

The Degrees of Bachelor of Science in Civil Engineering and Bachelor of Science in Mechanical Engineering.

For the Year 1898.

Until July 1, 1899, the requirements for admission to the courses leading to these degrees will be as follows:

1. **History:**
   (a) General History,—Myers, or an equivalent;
   (b) United States History,—Fiske, or an equivalent.
2. **English:**
   (a) Spelling, punctuation, capitalization and paragraphing;
   (b) The leading facts of English grammar;
   (c) Composition,—ability to write good English;
   (d) Literature:

PART I. READING.—A certain number of books are set for reading. The candidate will be required to present evidence of a general knowledge of the subject-matter, and to answer simple questions on the lives of the authors. The form of examination will usually be the writing of a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number—perhaps ten or fifteen—set before him in the examination paper. The treatment of these topics is designed to test the candidate's power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. In place of a part or the whole of this test, the candidate may present an exercise book, properly certified by his instructor, containing compositions or other written work done in connection with the reading of the books.

The following are the books for 1898:

Milton's "Paradise Lost" (Books I. and II.), Pope's "Iliad" (Books I. and XXII.), the Sir Roger de Coverly Papers in "The Spectator," Goldsmith's "The Vicar of Wakefield," Coleridge's "Ancient Mariner," Southey's "Life of Nelson," Carlyle's "Essay on Burns," Lowell's "Vision of Sir Launfal," Hawthorne's "The House of Seven Gables."

PART II. STUDY AND PRACTICE.—This part of the examination presupposes the thorough study of each of the works named below. The examination will be upon subject-matter, form and structure.

The books for this part of the examination for 1898 will be:

Shakespeare's "Macbeth," Burke's "Speech on Conciliation with America," De Quincey's "Revolt of the Tartars," Tennyson's "The Princess."

3. **Mathematics:**
   (a) Arithmetic completed;
   (b) Algebra to Logarithms,—Wells' University Algebra, or an equivalent.
   (c) Plane Geometry,—Wells', or an equivalent.
4. **Elementary Science:**
   (a) Physical Geography;
   (b) Human Anatomy and Physiology;
   (c) Physics;
   (d) Botany.

   The course in each to be not less than one term of twelve weeks, five recitations a week.
5. **French,**—one year of daily recitations:
   (a) Whitney's or Edgren's Grammar, and Super's or Rollin's Reader;
   (b) Halevy's "L'Abbe Constantin," or an equivalent amount of reading.
6. **German,**—one year of daily recitations:
   (a) Joynes-Meissner's or Thomas' Grammar, and Joynes' or Harris' Reader;
   (b) Schiller's "Jungfrau von Orleans," or an equivalent amount of reading.
7. **Drawing,—Free Hand and Instrumental.** The equivalent of three exercises a week throughout one year.

For the Year 1899.

After July 1, 1899, the requirements for admission to the courses leading to these degrees will be as follows:

1. **History,**
2. **English,**
3. **Mathematics,**
4. **Elementary Science,**

   as required for admission until July 1, 1899.
5. **French,**—two years of daily recitations.
6. **German,**—two years of daily recitations.

   [Note. Two years of Latin or Greek will be accepted instead of the second year of French and the second year of German.]
7. **Drawing,—Free Hand and Instrumental.** The equivalent of three exercises a week throughout one year.

For the Year 1900.

After July 1, 1900, the requirements for admission to the various courses will be as above described for the year 1899, except that Solid Geometry will be added to the entrance requirements in Mathematics in all courses.

Admission to Special Courses.

Students will be admitted to these courses upon presentation of certificates of proficiency in the necessary preparatory work or otherwise giving satisfactory evidence that they are prepared to pursue these studies advantageously. In the case of the two-year certificate courses special requirements for admission are outlined below.

Admission to Advanced Standing.

Students from other institutions will be admitted to advanced standing under the same conditions under which students of this University are allowed to advance, namely:

A student to be registered as a Freshman must not be more than three courses behind his class; to be registered as a Sophomore, Junior or Senior he must have completed the required work of his course, including entrance examinations up to the beginning of the preceding year; and, if a Sophomore, must not be more than three courses, or, if a Junior or Senior, not more than two courses behind his class.

No student can be admitted as a candidate for either of the baccalaureate degrees in Engineering after the beginning of the fourth year.

The Two-Year Mechanical and Electrical Certificate Courses.

Candidates for admission to either of these courses are required to satisfy the instructors in the respective branches by examination, presentation of certificates, or otherwise, that they have had the necessary preparation to enter upon and profitably pursue the studies offered. All such preparatory work should be thoroughly done before attempting to take up the regular work of the courses. The necessary preparation may be obtained at this institution or elsewhere, or through the Correspondence Courses of Instruction offered by this University.

I. Necessary Requirements.

English and Mathematics, as required for the baccalaureate degrees in Engineering; and

Elementary Physics: One quarter, twelve weeks, five recitations weekly.

II. Optional Ppeparatory Work.

If the candidate has time and opportunity to make additional preparation it might profitably be along the following lines, which are not required to enter or to pursue any of the studies in these two-year certificate courses:

(1) History, and remaining requirements in (4) Elementary Science, and (7) Drawing, as for the baccalaureate degree in Engineering.

Engineering Courses Offered in This College.

The following courses are offered:

1. A four-year undergraduate course leading to the degree of Bachelor of Science in Civil Engineering;

2. A four-year undergraduate course leading to the degree of Bachelor of Science in Mechanical Engineering;

3. A graduate course leading to the degree of Civil Engineer;

4. A graduate course leading to the degree of Mechanical Engineer;

5. Two groups of Manual Training courses;

6. A group of fourteen Mechanical-course electives for Bachelor of Science students;

7. A group of fourteen Electrical-course electives for Bachelor of Science students;

8. A two-year Mechanical Certificate course;

9. A two-year Electrical Certificate course.

General Description of the Engineering Courses.

Undergraduate Course in Engineering.

These four-year courses lead respectively to the degrees of Bachelor of Science in Civil Engineering and Bachelor of Science in Mechanical Engineering. They consist of forty-eight full prescribed courses as detailed below under the heading "Requirements of Courses." Undergraduates in this College, however, are allowed to specialize in those branches permitting a certain amount of specialization, but they may not take less than three nor more than four courses in any one quarter.

The object of these courses is to enable young men who have pursued successfully the prescribed studies to enter upon the proper development of the professional work with intelligence and well-directed application. Fundamental training is given in the arts and sciences of engineering. Academic courses are provided containing the elements of a liberal education. These form the best preparation for future professional work and constitute the proper foundation upon which one may build successfully his professional career and reputation. Thorough technical and practical instruction follow—training a student to meet the demands and to discharge faithfully the duties of his early engineering work, enabling him to keep pace with engineering progress and to prepare to meet the obligations of responsible work later in his career.

Graduate Courses in Engineering

These lead to the professional degrees of Civil Engineer and Mechanical Engineer respectively. They consist of eight advanced engineering courses and a thesis, and require one year (three quarters) of resident study and work at the University.

Candidates for these professional degrees are required to have completed the prescribed four-year course of undergraduate study in that department of this College in which they propose to take a degree, or to have completed such a course or its equivalent at some other institution of recognized standard conferring the same or an equivalent baccalaureate degree. In this case the diploma and other certificates of proficiency should be presented.

Ample facilities will be provided for the prosecution of engineering research. Graduate students are encouraged to specialize, and carry on original investigation, to fit themselves to become competent designers and responsible constructors, to prepare more fully to meet the demands of professional life and to contribute to the progress of engineering.

Special Engineering Courses.

These are in the field of Manual Training, the Mechanical and Electrical course electives for Bachelor of Science students, and the two-year Mechanical and Electrical Certificate courses. These lines of work afford opportunity for specializing in the undergraduate departments of the Engineering College. Students who do not propose to take a full course leading to a degree in Engineering may, nevertheless, be quite fully prepared to take up certain lines of profitable study and work during their residence at the University.

Requirements of Courses.

Requirements for the Degree of Bachelor of Science in Civil Engineering.

General Culture Courses—(18).

6 courses in Mathematics.
2 courses in Rhetoric.
1 course in English Literature.
2 courses in Economics.
1 course in Sociology.
2 courses in Geology.
2 courses in Chemistry.
2 courses in Physics.

18 [*Forward to page 96.*]

18 General Culture Courses. [*Continued from page 95.*]

Technical and Professional Courses—(30).

1 course in Heat, Electricity and Magnetism.
1 course in Theory of Dynamos and Motors.
1 course in Analytical Chemistry.
1 course in Economic Geology.
1 course in Applied Mathematics.
2 courses in Theoretical Mechanics.
1 course in Strength of Materials.
2 courses in Development and Utilization of Power.
1 course in Advanced Free Hand Drawing.
1 course in Instrumental Drawing.
1 course in Mechanical Drawing.
2 courses in Descriptive Geometry.
1 course in Surveying, Drawing and Field Practice.
1 course in Topographical and Mining Surveying.
2 courses in Roofs and Bridges and Mechanical Drawing.
2 courses in Stereotomy and Graphic Statics.
3 courses in Railroad Location and Field Practice.
1 course in Hydraulics.
1 course in Civil Engineering.
½ course in Civil Engineering Economics, and Plans and Specifications.
1 course in Mining Engineering.
1 course in Civil Engineering Laboratory.
½ course in Engineering Jurisprudence.
1 course Thesis.

48 courses required.

Requirements for the Degree of Bachelor of Science in Mechanical Engineering.

General Culture Courses—(18).

6 courses in Mathematics.
2 courses in Rhetoric.
1 course in English Literature.
2 courses in Economics.
1 course in Sociology.
2 courses in Geology.
2 courses in Chemistry.
2 courses in Physics.

18 [*Forward to page 97.*]

18 General Culture Courses. [*Continued from page 96.*]

Technical and Professional Courses—(30).

1 course in Heat, Electricity and Magnetism.
1 course in Theory of Dynamos and Motors.
1 course in Analytical Chemistry.
2 courses in Theoretical Mechanics.
1 course in Strength of Materials.
2 courses in Development and Utilization of Power.
5 courses in Mechanic Arts and Construction.
1 course in Descriptive Geometry.
1 course in Mechanical Drawing.
3 courses in Machine Drawing and Design.
2 courses in Machine Design.
½ course in Mechanical Engineering Design and Economics.
1 course in Mechanism and Machinery.
1 course in Materials of Engineering.
1 course in Hydraulics.
1 course in Thermodynamics of Engineering.
1 course in Steam Boilers, Heating and Ventilating.
1 course in Prime Movers.
1 course in Electric Power Transmission.
½ course in Engineering Jurisprudence.
1 course in Experimental Engineering.
1 course Thesis.

48 courses required.

Requirements of the Manual Training Courses.

First Group—(1 Course).

One-third course in Woodworking, Carpentry and Joinery.
One-third course in Woodturning and Pattern-making.
One-third course in Pattern-making.

Second Group—(4 Courses).

One course in Mechanical Drawing.
One-third course in Woodworking, Carpentry and Joinery.
One-third course in Woodturning and Pattern-making.
One-third course in Pattern-making.
One-third course in Iron and Steel Forging.
One-third course in Foundry Practice, Molding and Casting.
One-third course in Tinsmithing and Pipe-fitting.
One course in Machine-shop Practice, Chipping, Filing and Fitting.

Groups of Engineering Electives for Bachelor of Science Students.

The Mechanical Group—(14 Courses).

Two courses in Mechanic Arts.
One course in Mechanical Drawing.
One course in Machine Drawing and Designing.
One course in Machine Design.
One course in Mechanism and Machinery.
One course in Heat, Electricity and Magnetism.
One course in Analytical Chemistry.
Two courses in Development and Utilization of Power.
Three courses in Theoretical Mechanics and Strength of Materials.
One course in Experimental Engineering.

The Electrical Group—(14 Courses.)

One course in Mechanic Arts.
One course in Mechanical Drawing.
One course in Machine Design.
One course in Heat, Electricity and Magnetism.
One course in Theory of Dynamos and Motors.
One course in Dynamo-electric Machinery.
One course in Electric Light and Railway Machinery.
Two courses in Development and Utilization of Power.
Three courses in Theoretical Mechanics and Strength of Materials.
One-third course in Power Measurements.
One-third course in Electrical Measurements.
One-third course in Electrical Engineering Laboratory.
One course in Electric Power Plants and Transmission.

Requirements of the Two-Year Mechanical Course.

General Culture Courses—(9).

3 courses in Mathematics.
1 course in Rhetoric.
1 course in English Literature.
2 courses in Chemistry.
2 courses in Physics.

9 [*Forward to page 99.*]

9 General Culture Courses. [*Continued from page 98.*]

Technical and Professional Courses—(15).

1 course in Heat, Electricity and Magnetism.
1 course in Engineering Calculus.
1 course in Elementary Mechanics.
1 course in Strength of Materials.
1 course in Development and Utilization of Power.
3⅓ courses in Mechanic Arts and Construction.
1 course in Descriptive Geometry.
1 course in Mechanical Drawing.
1 course in Machine Drawing and Design.
1 course in Machine Design.
1 course in Mechanism and Machinery.
1 course in Technology of Iron and Steel.
⅓ course in Testing Materials.
⅓ course in Power Measurements.

24 courses required.

Requirements of the Two-Year Electrical Course.

General Culture Courses—(9).

3 courses in Mathematics.
1 course in Rhetoric.
1 course in English Literature.
2 courses in Chemistry.
2 courses in Physics.

Technical and Professional Courses—(15).

1 course in Heat, Electricity and Magnetism.
½ course in Electrical Measurements.
1 course in Engineering Calculus.
1 course in Elementary Mechanics.
1 course in Development and Utilization of Power.
2 courses in Mechanic Arts and Construction.
⅔ course in Electrical Construction.
1 course in Descriptive Geometry.
1 course in Mechanical Drawing.
1 course in Machine Drawing and Design.
1 course in Machine Design.
1 course in Theory of Dynamos and Motors.
1 course in Electric Power Transmission.
⅓ course in Power Measurements.
½ course in Electrical Engineering Laboratory.
1 course in Mechanical Technology.

24 courses required.

Description of Courses.

Undergraduate Course in Civil and Mining Engineering.

This is a four-year course leading to the degree of Bachelor of Science in Civil Engineering. It has been planned with a view to laying a broad and substantial foundation for the general and technical knowledge needed by practitioners in civil engineering; so that graduates, guided by their theoretical education, and the practical training they may get during the course, may find profitable employment in the line of their profession and develop into useful investigators and scientific constructors.

The work of the students is based upon an extended course on the Mechanics and Economics of Engineering. The object aimed at is to give as thorough a preparation as possible for the general purposes of the profession in the following subjects: The survey, location, and construction of railroads, tramways, elevated railroads, tunnels, and aqueducts; the design and construction of girder, truss and suspension bridges, of towers, roofs and arches of stone and iron; hydrographical and topographical surveys of rivers and harbors, coast and geodetic surveys; the determination of latitude and longitude and the location of true meridians; the projection of maps, the construction of working drawings, plans and specifications of various engineering structures; the design and construction of machines and the determination of their efficiency; the tests and selection of the materials of engineering; the design and construction of metallurgical works; the surveys of water works, canals, levees, revetments and retaining walls; the construction of coke ovens and the design of coal and coke plants; the construction and superintendence of power and power plants; the economic theories of railroad location and construction track work and maintenance of way of railroads; the design and construction of hydraulic motors, and a course of instruction in mining, especially adapted to the coal and ore-mining peculiar to West Virginia.

Distribution of the Work for the Degree of B.S.C.E.

FIRST YEAR.

	FALL.	WINTER.	SPRING.
8.00	Fr. Hd. Drawing 1	Sociology	Projection Drawing 2
9.00	Chemistry 1	Chemistry 2	
10.30	Univ. Algebra 1	Solid Geometry 2	Trigonometry 3
11.30	Rhetoric 1	Rhetoric 2	Eng. Literature 5

Distribution of the Work for the Degree of B.S.C.E.—Continued.

SECOND YEAR.

	FALL.	WINTER.	SPRING.
8.00	Anal. Geometry 4	Differ. Calculus 5	Integ. Calculus 6
9.00	Economics 1	Economics 2	Heat, El. & Mag. 8
10.30	Physics 2	Physics 3	Applied Math. 1
11.30	Land Survey 4	Des. Geometry 4	Des. Geometry 5
1.30	Tu., Th. An. Chemistry 4	An. Chemistry 5	An. Chemistry 6
1.30	Fr. Field Practice	Field Practice.	Field Practice

THIRD YEAR.

8.00	R. R. Survey 6	R. R. Construction 7	Roads, S. & P. 8 Graph. Stat. 9
9.00	Mechanics 2	Mechanics 3	Str. of Materials 4
10.30	Top Survey 11 Mine Survey 10	Mech. Draw. 12	Dynamos and Motors 10
11.30	Geology 1	Geology 2	Econ. Geology 3
1.30	Fr. Field Practice	Field Practice	Field Practice

FOURTH YEAR.

8.00	Power 11	Power 12	Thesis 23
9.00	R. & B. Design 13	Hydraulics 18	Civil Eng.
10.30	Stereotomy 14	Stereotomy 15	Railroad Econ. 21
11.30	Metallurgy 16 Mining 17	Bridge Design 19	Eng. Jurisp. Plans & Spec. 22
1.30	Sat. Eng. Lab.	Eng. Lab.	Eng. Lab.

Undergraduate Course in Mechanical Engineering.

This is a four-year course leading to the degree of Bachelor of Science in Mechanical Engineering. It seeks to develop the principles and to prepare for intelligent work involving the design, selection, cost, construction, installation, testing and management of power generators, prime movers, and machinery for manufacturing, transportation and power transmission; the planning, equipment, cost, construction and management of manufacturing plants, shops, factories, and systems of fire protection, lighting, heating and ventilating.

Students pursuing this course may elect either the Mechanical or the Electrical alternative of the fourth year, receiving in either case the degree of Bachelor of Science in Mechanical Engineering. This provision has been made to meet the requirements of those who may wish to specialize in either the steam engineering or the electrical engineering branches of this profession.

Distribution of the Work for the Degree of B.S.M.E.

First Year.

	FALL.	WINTER.	SPRING.
8.00	Sociology 1		
9.00	Chemistry 1	Chemistry 2	Des. Geometry
10.30	Univ. Algebra 1	Solid Geometry 2	Trigonometry 3
11.30	Rhetoric 1	Rhetoric 2	English Literature 5
1.30 Fr.	Forging 4.	Foundry 5	Tin and Pipe Fitting 3
8.00 Sat.	Woodworking 1	Pattern Making 2	Pattern Making 3

Second Year.

8.00	Anal. Geometry 4	Differ. Calculus 5	Integ. Calculus 6
9.00	Economics 1	Economics 2	Heat, El. & Mag. 8
10.30	Physics 2	Physics 3	Mechanism 34
1.30	M., W. Mechanical Drawing 21	Mech. Drawing 22	Mech. Drawing 23
1.30 Tu., Th.	Anal. Chem, 4	Anal. Chem. 5	Anal. Chem. 6
8.00 Sat.	Machine Work 7	Machine Work 8	Machine Work 9

Third Year.

8.00	Power 11	Power 12	Mach. Design 31
9.00	Mechanics 2	Mechanics 3	Str. Materials 4
10.30			Dynamos and Motors 10
11.30	Geology 1	Geology 2	
1.30 Tu., Th.	Machine Work 10	Machine Work 11	Machine Work 12
1.30 Fr.	Mach. Drawing 24	Mach. Drawing 25	Mach. Drawing 26
8.00 Sat.	Exper. Mech. 43	Power Meas. 44	Testing Materials 45

Fourth Year.—Mechanical Alternative.

8.00	Thermodynamics 37	Prime Movers 41	Power Trans. 42
9.00		Hydraulics 18	Eng. Jurispr. Eng. Design 33
10.30	Mach. Design. 32	Boilers 38 Heat. & Vent. 39	Thesis
11.30	Mat. of Eng 36		
1.30	M., W., Fr. Drawing and Design 27	Drawing and Design 28	Drawing and Design 29
1.30 T., Th.	Mech. Const. 13	Mech. Const. 14	Mech. Const. 15
8.00 Sat.	Eng. Lab. 46	Eng. Lab. 47	Eng. Lab. 48

Distribution of the Work for the Degree of B.S.M.E.—Continued.

FOURTH YEAR.—ELECTRICAL ALTERNATIVE.

	FALL.	WINTER.	SPRING.
8.00	Thermodynamics 37	Prime Movers 41	Power Trans. 42
9.00	Dyn.-Elect. Mach.	Hydraulics 18	Eng. Jurisp.
10.30	Mach. Design 32	El. Light and Railway Mach.	{ Eng Design 33 / Thesis
1.30	M., W., Fr. Drawing and Design 27	Drawing and Design 28	Elect. Meas. 9
1.30	T., Th. Elect. Const. 16	Elect. Const. 17	Elect. Eng. Lab.
8.00	Sat. El. Eng. Lab.	El. Eng. Lab.	Eng. Lab. 48

Manual Training Courses.

The first group consists of one full course of shop practice in wood and metal working (Courses 1, 2, 4, Mechanical Engineering). The second group consists of one full course in mechanical drawing (Courses 21, 22, 23, Mechanical Engineering), and three full courses of shop practice in wood and metal working (Courses 1, 2, 3, 4, 5, 6, 7, 8, 9, Mechanical Engineering). These courses aim to present the simple elements of some of the constructive arts which admit of being developed into a logical series of exercises. Their merit is chiefly educational rather than as possessing any intrinsic value in relation to the several branches of handicraft work from which they are taken. The primary object is the training of the eye to see the form of objects, and of the hand to produce such forms in the materials most commonly used in constructive work. At the same time the student is acquainted with the use of the fundamental tools and with the accuracy called for in the production of the elements of construction and of simple combinations of the same in fitting parts of the work together. There is sufficient instruction in handicraft work and practice to form a proper foundation for the more advanced work with machine tools in mechanical construction, and these courses are, therefore, required of all students taking the full course in Mechanical Engineering.

Groups of Engineering Electives for Bachelor of Science Students.

These consist of fourteen full courses in the applied sciences and engineering. They are preferably taken in such groups that they may have a proper sequence in the departments in which they are chosen.

They have been arranged to meet the requirements of those candidates for the degree of Bachelor of Science who prefer to take their fourteen elective courses in engineering branches, and for those who look forward to becoming candidates for an engineering degree.

Students who can command the time and the resources to pursue the four-year course leading to the degree of Bachelor of Science will find it the best possible preparation for an engineering education and future professional work. After receiving the degree of Bachelor of Science the graduate will receive one of the regular baccalaureate degrees in engineering upon completion of the remaining sixteen technical and professional courses. This work will require four quarters. A further resident period of three quarters spent in satisfactory work will entitle the graduate to a professional engineering degree.

The Two-Year Mechanical and Electrical Certificate Courses.

These consist of twenty-four full courses, nine of which are in general culture studies similar to those pursued by the candidates for the engineering degrees, and given by the College of Arts and Sciences; the remaining fifteen courses consist of technical studies and practical work, given by the College of Engineering and the Mechanic Arts. They meet a demand for special training in the elements of engineering science and mechanical technology on the part of an increasing number of young men engaged as artisans, draughtsmen and engineers in the mechanical industries and trades. They will be found adapted also to the requirements of those in charge of the power plants of manufacturing and other industries and of central-station men engaged in electric light, power and railway work. A certificate of proficiency will be given the student upon satisfactorily completing the work of the several branches in either of these two-year courses. If at any time the student should return to the University to become a candidate for the degree of Bachelor of Science in Mechanical Engineering, he should first complete the entrance requirements for admission to this degree course as set for that year. He will then be admitted as a candidate for this degree. Following this, he will take such courses as are set forth in the regular four-year course of study required for this degree, but he will be given credit for similar or accepted equivalent courses of study previously passed upon in the two-year course. He will not be required to pursue any of the previous two years of work a second time. He will be admitted to such advanced standing as he may be entitled to in the regular four-year course.

Distribution of Work for Mechanical Certificate.

First Year.

	FALL.	WINTER.	SPRING.
9.00	Chemistry 1	Chemistry 2	Mach. Des. 30
10.30	Univ. Algebra	Solid Geometry	Trigonometry
11.30	Rhetoric 1	Des. Geometry 1	Eng. Literature 5
1.30 M., W.	Mech. Drawing 21	Mech. Drawing 22	Mech. Drawing 23
1.30 Fr.	Forging 4	Foundry 5	Machine Work 7
1.30 Sat.	Woodworking 1	Pattern Making 2	Pattern Making 3

Second Year.

8.00	Power 11		Str. Materials 4
9.00		Mech. Tech. 35	Heat, Elect. and Mag. 8
10 30	Physics 2	Physics 3	Mechanism 34
11.30	Eng. Calculus 14	Elem. Mechanics 1	
1.30 Tu., Th.	Machine Work 10	Machine Work 11	Machine Work 12
1.30 Fr.	Mach. Drawing 24	Mach. Drawing 25	Mach. Drawing 26
8.00 Sat.	Mach. Work 8	Power Meas. 44	Testing Mater. 45

Distribution of Work for Electrical Certificate.

First Year.

	FALL.	WINTER.	SPRING.
9.00	Chemistry 1	Chemistry 2	Mach. Des. 30
10.30	Univ. Algebra	Solid Geometry	Trigonometry
11.30	Rhetoric 1	Des. Geometry 1	Eng. Literature 5
1.30 M., W.	Mech. Drawing 21	Mech. Drawing 22	Mech. Drawing 23
1.30 Fr.	Forging 4	Foundry 5	Machine Work 7
8.00 S.	Woodworking 1	Pattern Making 2	Pattern Making 3

Second Year.

8.00	Power 11		Power Trans. 42
9.00		Mech. Tech. 35	Heat, Elect. and Mag. 8
10.30	Physics 2	Physics 3	Dynamos and Motors 10
11.30	Eng. Calculus 14	Elem. Mechanics 1	
1.30 M., W.	Mach. Drawing 24		
1.30 T., Th.	Elect. Const. 16	Elect. Const. 17	Elec. Eng. Lab.
1.30 Fr.	Mach. Drawing 25	Mach. Drawing 26	Elec. Meas. 9
8.00 Sat.		Power Meas. 44	Eng. Lab. 48

Graduate Course for the Degree of Mechanical Engineer.

This comprises advanced work in Mathematical Physics with particular reference to the sciences of Thermodynamics, Hydrodynamics, Electricity and Magnetism, and to their respective applications in engineering development, design and construction. Designs of steam, hydraulic and electrical machinery, as well as of power and manufacturing plants, will be submitted, with complete sets of drawings and blue prints, specifications, bills of material and estimates for some one completed project in these fields. A review will be made of industrial, manufacturing and power-plant systems, and a report submitted, with special attention given to the economic features of such engineering projects.

Graduate Course for the Degree of Civil Engineer.

This course will comprise eight full courses of advanced civil engineering studies and work, and a graduating thesis. These courses may be selected from the advanced and the graduate courses offered by the Department of Civil Engineering. Similar graduate courses offered by the other departments of this College may be selected to accompany the Civil Engineering graduate courses if, after conference, they shall be accepted as satisfactory to the head of this department.

Theses.

Every candidate for a baccalaureate or a graduate degree in Engineering will be required to prepare a thesis on some subject relating to a special branch of engineering or other department of applied science. The thesis must be either a design or a review of some machine, structure or process belonging to some department of scientific investigation. It must be fully elaborated and accompanied by the necessary working drawings or models required for the proper elucidation of the subject of the thesis.

With its accompanying drawings it will be presented first to the professor under whose guidance it has been prepared. It must be accepted by the head of that department in which the degree is to be conferred. A typewritten copy of the thesis, prepared according to the official specifications for theses, must be placed in the University Library before graduation.

Fellowships.

Subject to the approval of the Board of Regents at its meeting in June, 1898, the Executive Committee of the University has established two Fellowships in this College, one in Civil Engineering and one in

Mechanical Engineering. These fellowships are established for the purpose of encouraging advanced study and promoting higher scholarship. Each Fellow will be paid $300 annually, and will be excused from the payment of all university fees. Applications for Fellowships must be made to the President of the University not later than June 1st each year.

Special Students.

Deserving young men who have not the time or are otherwise unable to take the full course will be allowed to take a special or partial course, consisting of such studies as they are prepared to take up, provided that such partial course shall have been submitted to the Faculty and approved by them.

Young men under twenty-one years of age desiring to take special courses in the College of Engineering and the Mechanic Arts are required to present the same qualifications as candidates for one of the regular courses in this College. Young men twenty-one years of age or over who are not candidates for an Engineering degree, but who wish to pursue special studies along engineering lines, will be permitted to do so upon giving satisfactory evidence that they are prepared to take the desired studies advantageously; but if they subsequently desire to become candidates for a degree or to take a regular course in engineering they must pass the required entrance examinations for that year.

Engineering Society.

The Engineering Society is organized in connection with the Engineering Departments. It is conducted by the students of these departments, and meets once a week. Its object is the investigation and discussion of scientific subjects. All engineering students are requested to join this organization and perform such work as its rules require. Students taking either of the four-year courses leading to the baccalaureate degrees in Engineering are expected to engage actively for three years in the work of the Society.

Engineering students are further recommended to attend regularly the meetings of the West Virginia Academy of Sciences, Arts and Letters, whose sessions are held at this institution, and to select suitable groups of the synoptic lectures offered by the University and given weekly throughout the year.

DEPARTMENTS OF INSTRUCTION.

Each of the courses of instruction offered by the Engineering departments is known as a full course unless otherwise stated; that is, a course of five class exercises a week for one quarter, or their equivalent in laboratory or other practical work. When no instructor's name is appended to a course, such course will be given by the head of the department.

The following branches of applied science and engineering are represented in the courses offered by the Engineering departments:

Applied Mathematics.
Civil Engineering.
Designing.
Drawing.
Electrical Engineering.
Experimental Engineering.
Hydraulic Engineering.
Mechanics.
Mechanic Arts.
Mechanical Engineering.
Metallurgy.
Mining Engineering.
Municipal Engineering.
Railroad Engineering.
Sanitary Engineering.
Steam Engineering.
Structural Engineering.
Surveying.

Civil and Mining Engineering.

PROFESSOR JOHNSTON, MR. MORRIS and MR. ——.

Courses for Undergraduates.

1. Advanced Free Hand Drawing. Lettering, line and brush shading; pen topography; conventional signs; charcoal work; coloring; representation of earth, wood, masonry, etc. Lectures and drawing from the model. Required of Civil Engineering Freshmen.

Fall, 8.00; 14 S.

2. Projections. Orthographic projections in one quadrant; elementary problems in shades and shadows; isometric and oblique projections. Lectures and recitations. Drawing-room work. Warren's "Industrial Drawing," part III. Required of Civil Engineering Freshmen.

Spring, 8.00; 14 S.

3. Land Surveying. Theory and practice of land surveying; magnetic variations; calculating the content; retracing old lines; division of lands; establishment of meridians; care and use of instruments; mapping the survey; field practice. Lectures and recitations. Gillespie's "Surveying." Required of Civil Engineering Sophomores.

Mr. Morris. Fall, 11.30; 14 S.

4. Descriptive Geometry. Orthographic projections in the four quadrants; problems of the point, line and plane; tangencies and the development of single-curved surfaces. Warren's text-books. Required of Civil Engineering Sophomores. Mr. Morris. Winter, 11.30; 14 S.

5. Descriptive Geometry. Single-curved, double-curved and warped surfaces; intersections, tangencies and developments; shades, shadows, and perspective. Lectures and recitations. Warren's text-books. Required of Civil Engineering Sophomores.

Mr. Morris. Spring, 11.30; 14 S.

6. Railroad Surveying. Theory and practice of railroad surveying. Lectures, recitations and field work. Searles. Required of Civil Engineering Juniors. Mr. Morris. Fall, 8.00; 14 S.

7. Railroad Construction and Maintenance. Tunnels, trestles, track work, earth work, signalling, graduation, masonry, etc. Tratman's "Track and Trackwork." Required of Civil Engineering Juniors.

Mr. Morris. Winter, 8.00; 14 S.

8. Roads and Pavements. Location, construction, and maintenance; study and comparison of the various types of roads; road-making material. Lectures. Required of Civil Engineering Juniors.

Half course. Mr. Morris. First term, Spring, 8.00; 14 S.

9. Graphic Statics. Graphic method of determining stresses, moments, and shears in roof and bridge trusses. Merriman's "Roofs and Bridges," part II. Required of Civil Engineering Juniors.

Half course. Mr. Morris. Second term, Spring, 8.00; 14 S.

10. Mine Surveying. Theory and practice of underground surveying. Lectures and recitations. Required of Civil Engineering Juniors. Half course. Mr. Morris. First term, Fall, 10.30; 14 S.

11. Topographical Surveying. Theory and practice of topographic, hydrographic and barometric surveying, city surveying, etc. Lectures and recitations. Gillespie's "Higher Surveying." Required of Civil Engineering Juniors.

Half course. Mr. Morris. Second term, Fall, 10.30; 14 S.

12. Mechanical Drawing. Engineering drawing, detail shop drawings, etc. Laboratory. Thorne's "Senior Course in Mechanical Drawing." Required of Civil Engineering Juniors.

Mr. Morris. Winter, 10.30; 14 S.

13. Roof and Bridge Design. Determinations of stresses, shears, and bending moments, in various types of roof and bridge trusses by

analytic methods. Lectures and recitations. Merriman's "Roofs and Bridges," parts I. and III. Required of Civil Engineering Seniors.
Fall, 9.00; 14 S.

14. Stereotomy. Stone cutting, plain and decorative. Recitation and Laboratory. Warren's "Stone Cutting." Required of Civil Engineering Seniors. Prerequisites, Courses 4, 5, 9. Fall, 10.30; 14 S.

15. Stereotomy. Stone cutting; pattern making; cutting stones in clay. Laboratory. Warren's "Stone Cutting." Required of Civil Engineering Seniors. Prerequisites, Courses 4, 5, 9, and 14.
Half course. First term, Winter, 11.30; 14 S.

16. Metallurgy. The metallurgy of iron and steel. Required of Civil Engineering Seniors. Half course. First term, Fall, 11.30; 14 S.

17. Mining Engineering. Coal and ore mining peculiar to the bituminous coal regions; the inception, construction and operation of mining plants; the gases of coal mines and their treatment. Lectures and recitations. Required of Civil Engineering Seniors.
Half course. Second term, Fall, 11.30; 14 S.

18. Hydraulics. Theoretic pressure and energy of water; flow of water through orifices, tubes and weirs; flow in conduits, pipes, canals, brooks, and rivers; current meters, water motors, water wheels, and naval hydromechanics. Lectures and recitations. Merriman's "Hydraulics." Required of Civil Engineering Seniors.
Winter, 9.00; 14 S.

19. Bridge Design. Complete designs of the plate girder and the Pratt truss. Recitations, lectures, and laboratory. Merriman's "Roofs and Bridges," parts III. and IV. Required of Civil Engineering Seniors. Winter, 10.30; 14 S.

20. General Engineering Construction. Materials of engineering; foundations; retaining walls; masonry and pile construction, etc. Lectures and recitations. Required of Civil Engineering Seniors.
Spring, 9.00; 14 S.

21. Railroad Economy. General theory of railroad location and construction, from the inception of the project to the completion; effects of grades, curvature and distance on operating expenses and revenue; railroad finance and management. Lectures. Required of Civil Engineering Seniors. Spring, 10.30; 14 S.

22. Plans and Specifications. General forms for plans and specifications; local, customary and legal aspects. Lectures. Required of Civil Engineering Seniors.
Half course. First term, Spring, 11.30; 14 S.

23. Thesis. Required of Civil Engineering Seniors.

Courses for Graduates.

HOURS TO BE ARRANGED.

24. Bridge Design. Double trusses; arched upper chords.

25. Bridge Design. Suspension, cantilever, and swing bridges.

26. Sanitary Engineering. Sewers and drains; house drainage; sewage disposal.

27. Heating and Ventilation of Buildings.

28. Masonry. Dams, foundations, arches, piers, and abutments.

29. Engineering Drawing and Design.

30. Building Superintendence. Detail study of construction and methods. Half course.

31. Steel Framed Structures. Elevated roads, water towers, high buildings, inclines.

32. Thesis. One course. Required of candidates for the degree of C.E.

Mechanical Engineering and Mechanic Arts.

PROF. ALDRICH, MR. JONES, MR. WHYTE, MR. WEST and Mr.——

Courses for Undergraduates.

1. Woodworking. Instruction is given in carpentry, joinery and other bench work; exercises with the fundamental edge tools in soft and hard woods, in different directions with respect to the grain, and in matching, molding, jointing and making typical framed work.

One-third course. Fall, Saturday, 8 to 12; Summer, month of July, Monday, Wednesday, Friday, 1.30 to 5.30; 22 M.

2. Woodturning. Comprises the fundamental geometric forms in soft and hard woods; fitting forms of reversed curves; face-plate work, chucking, boring, finishing and polishing, and elements of pattern-making. One-third course. Winter, Saturday, 8 to 12; Summer, August 1 to 19, Monday, Wednesday, Friday, 1.30 to 5.30; 22 M.

3. Pattern Making. Applies the foregoing instruction in its relation to patterns for machine construction, considers the types of patterns and usual allowances for draft, shrinkage and finish, with exercises

in making patterns of machine elements and other work to be executed later in the machine shop.

One-third course. Spring, Saturday, 8 to 12; Summer, August 22 to September 22, Monday, Wednesday, Friday, 1.30 to 5.30; 22 M.

4. Forging. Exercises in drawing out and sizing, forming, welding, jointing and fitting iron; steel forging, tempering, annealing; making typical tools to be used later in the machine shop; manner of working forges; determining quality of iron and steel and strength of the students' welded joints. One-third course. Fall, Friday, 1.30 to 5.30; Spring, Saturday, 8 to 12; Summer, July 1 to 18, Monday to Friday, 7.30 to 12; August 22 to September 22, Monday, Wednesday, Friday, 1.30 to 5.30. Mr. West. 12 M.

5. Foundry. Molding and casting in connection with pattern-making; selection, preparation and use of molding, facing and parting sands; use of typical molders' tools and appliances; making castings from exercise patterns and from those for machine work.

One-third course. Winter, Friday, 1.30 to 5.30; Summer, July 19 to 29, Monday to Friday, 7.30 to 12. Mr. Whyte. 11 M.

6. Tin-Smithing and Pipe-Fitting. Brazing, tinning, forging and use of coppers; seamless and solder-jointed work in tin and sheet-iron; laying out; cutting and forming sheet-metal; solder joints for electrical fitting; bending and coiling pipe; making joints and use of packing; drilling and tapping for pipe and bolt-holes in boiler plate; soft and hard patches; tank and boiler riveting, caulking and tube expanding. One-third course. Spring, Friday, 1.30 to 5.30; Summer, August 1 to 11, Monday to Friday, 7.30 to 12. Mr. West. 12 M.

7, 8, 9. Machine Work. Iron work at the bench, chipping, filing, fitting, scraping, polishing; key-seating; formation of straight-edge, surface plate, gauges and machinists' small tools. Handwork with machine tools, drilling, tapping; machine tool work with the drill-press, lathe, shaper. Fall, Winter, Spring, Tuesday, Thursday, 1.30; Summer, August 12 to September 22, Monday to Friday, 7.30 to 12. Mr. West. 13 M.

10, 11, 12. Machine Tool Work. A continuation of Courses 7, 8, 9, Mechanical Engineering; advanced machine tool work with drill-press, lathe, shaper, planer, emery grinder, and milling machine; production of finished machine elements and interchangeable parts; reproduction of typical details of machine tools and other workshop appliances. Fall, Winter, Spring, Tuesday, Thursday, 1.30. Mr. West. 13 M.

13, 14, 15. Mechanical Construction. Reproduction of typical details of steam-engine and other motive-power machinery; work from original designs; manufacture of special apparatus for shop and laboratory use; practice in building, assembling and erecting workshop and engineering appliances, motive-power machinery and accessories, and in attendance on the same.

Fall, Winter, Spring, Tuesday, Thursday, 1.30.
Prof. Aldrich and Mr. West. 13 M.

16. Electrical Construction. Mechanical repairs to dynamos and motors, babbitting and boring out bearings, fitting brushes, truing commutator; winding field coils; making switches and rheostats.

One-third course. Fall, Tuesday, Thursday, 1.30.
Prof. Aldrich and Mr. West. 13 M.

17. Electrical Construction. Fitting up and repairing arc lamps; running arc, incandescent, bell and telephone circuits; fitting up switchboards; winding armatures.

One-third course. Winter, Tuesday, Thursday, 1.30.
Prof. Aldrich and Mr. West. 13 M.

18. Lectures on Woodworking. Principles of design and construction of edge tools for working wood; use of wood in construction and pattern-making; selection, quality and strength of commercial woods. Accompanying Courses 1, 2, 3, 5, Mechanical Engineering, and time assigned from same.

Fall, Saturday, 8.00; Summer, Wednesday, 1.30; 20 M.

19. Lectures on Metal Working. Principles of design and construction of forming and edge tools, and of work-shop appliances; use of iron and steel in construction; selection, quality and strength of common irons and of steel. Accompanying Courses 4, 6, 7, 8, 9, Mechanical Engineering, and time assigned from same.

Winter, Tuesday, Thursday, 1.30;
Summer, Monday, Wednesday, Friday, 11.30; 20 M.

20. Lectures on Construction. Principles of selection, construction, and use of small tools, and jigs, standard reference tools and measures, machine tools and workshop appliances; use of iron and steel in construction; inspection, and assembling of finished work; economics of workshop production and of manufacturing plants. Accompanying Courses 10, 11, 12, 13, 14, 15, Mechanical Engineering, and time assigned from the same. Spring, Tuesday, Thursday, 1.30; 20 M.

21. Mechanical Drawing. Plain lettering, care and use of drawing instruments, selected geometric constructions, line exercises, finished drawings. Mimeographed notes, blue prints, and Tracy's or Anthony's "Mechanical Drawing."

One-third course. Fall, Monday, Wednesday, 1.30.
Summer, month of July, Tuesday, Thursday, 1.30 to 5.30;
Saturday, 8 to 12.
Mr. Jones. 20 M.

22. Mechanical Drawing. Isometric, cabinet and orthographic projection, perspective and simple working drawings. Prerequisite, Course 21, Mechanical Engineering. Tracy's or Anthony's "Mechanical Drawing." One-third course. Winter, Monday, Wednesday, 1.30; Summer, August 25 to September 22, Tuesday, Thursday, 1.30 to 5.30; Saturday, 8 to 12.
Mr. Jones. 20 M.

23. Mechanical Drawing. Working drawings from models and blue prints, tracing and blue printing; details of mechanical movements worked out in Course 33, Mechanical Engineering. Prerequisite, Course 22, Mechanical Engineering.
One-third course. Spring, Monday, Wednesday, 1.30; Summer, August 25 to September 22, Tuesday, Thursday, 1.30 to 5.30; Saturday, 8 to 12.
Mr. Jones. 20 M.

24, 25. Machine Drawing. Conventional methods, detail and assembled drawings of machine parts from sketches, tracing and blue printing. Prerequisite, Course 23, Mechanical Engineering. Lectures and drafting. Two-thirds course. Fall and Winter, Friday, 1.30 to 5.30; Summer, month of July, Tuesday, Thursday, 1.30 to 5.30; Saturday, 8 to 12.
Mr. Jones. 20 M.

26. Machine Drawing. Working drawings of machine parts, etc., developed in Machine Design 31. Prerequisite, Courses 24, 25, Mechanical Engineering. One-third course. Spring, Friday, 1.30 to 5.30; Summer, August 1 to 25, Tuesday, Thursday, 1.30 to 5.30; Saturday, 8 to 12.
Mr. Jones. 20 M.

27. Drawing and Designing. Complete drawings of machines developed in Course 31, Mechanical Engineering. Prerequisite, Course 26, Mechanical Engineering.
Two-thirds course. Fall, Monday, Wednesday, Friday, 1.30.
Mr. Jones; 20 M.

28. Drawing and Designing. Drawing-room practice supplementing Course 32 and accompanying Courses 38 and 41, Mechanical Engineering; complete drawings of engines are made from calculations and designs worked out in the above courses. Students taking the electrical alternatives are allowed to specialize. Prerequisite, Course 31, Mechanical Engineering. Reference books: Scheffler's "Design and Construction of Modern Steam Engines," Whitham's "Steam Engine Design," and blue prints from manufacturers.
Two-thirds course. Winter, Monday, Wednesday, Friday, 1.30.
Mr. Jones. 20 M.

29. Drawing and Designing. Structural designing; drawing-room practice accompanying Course 33, Mechanical Engineering; spe-

cialized engineering drawing. Prerequisite, Course 28, Mechanical Engineering. Reference is made chiefly to blue prints of actual power, manufacturing and other plants and installations.

Two-thirds course. Spring, Monday, Wednesday, Friday, 1.30. Mr. Jones. 20 M.

30. Elementary Machine Design. Elementary course specially arranged to meet the common requirements of the two-year electrical and mechanical students. Prerequisite, Course 3, Mathematics. Lectures and recitations. Spring, 9.00. Mr. Jones. 20 M.

31. Machine Design. Elements of machine design, conventional and rational; adaptation of commercial sizes; proportioning fastenings, flanges, riveted joints, bearings, rotating pieces, connecting links, machine supports; influence of material and treatment on design. Supplemented by Course 26, Mechanical Engineering. Prerequisite or accompanying Course 4, Mechanics. Lectures and recitations. Smith's "Machine Design," Bevis & Lowe's "Manual of Machine Drawing and Design." Spring, Summer, 8.00. Mr. Jones. 20 M.

32. Machine Design. Analysis and design of valves and valve gears; heavy transmission, conveying and manufacturing machinery; proportioning parts of steam engine. Supplemented by Course 27, Mechanical Engineering. Specifications, bills of material and estimates for important machines designed in course. Prerequisite, Course 31, Mechanical Engineering. Lectures and recitations. Peabody's "Valves and Valve Gears," Whitham's "Steam-Engine Design," trade catalogues and technical journals. Fall, 10.30. Mr. Jones. 20 M.

33. Mechanical Engineering Design. Embodies the details of the earlier courses of instruction in Prime Movers and motive-power machinery in respect to the design of steam and electric power and hydraulic plants for power transmission and manufacturing purposes; location of the plant; selection, arrangement, subdivision into units and installation; economics, organization and management of power and manufacturing plants; engineering specifications and æsthetics of engineering design. Lectures and accompanying Course 29, Mechanical Engineering. Half course. Spring, second term, 9.00; 20 M.

34. Mechanism and Machinery. (a) Analysis and classification of mechanism, diagrams, and relative velocities of machine parts; principles of transmission and change motion by linkages, rolling contact, toothed gearing, couplings, belt gearing, cams, parallel and straight-line motions; analysis of motions in simple machines. Supplemented by practical applications, Course 23, Mechanical Engineering. (b) Classification of machinery, with especial attention to workshop appliances, machine tools and machinery of transmission. Prerequisite, Course 3, Mathematics. Lectures and recitations. F. R. Jones' "Machine Design," Part I., technical journals and trade catalogues.

Spring, 10.30; Summer, 9.00. Mr. Jones. 20 M.

35. Mechanical Technology. The principles, appliances, methods and economics of workshop production; the use of iron and steel in mechanical construction; adaptation of cutting tools to material and work; shop-order systems and cost accounts. Winter, 9.00; 20 M.

36. Materials of Engineering. The metallurgy of iron and steel manufacture; the use of iron and steel in engineering construction; specifications, inspection, qualitative and quantitative methods of testing materials of engineering. J. B. Johnson's "Materials of Construction."
Fall, 11.30; 20 M.

37 Thermodynamics of Engineering. Mechanical theory of heat; thermodynamics of gases and vapors, with special application to steam and other heat engines, air, and refrigeration. Prerequisites, Courses 11 and 12, Mechanics. Lectures, recitations and laboratory, Course 46, Mechanical Engineering. Peabody's "Thermodynamics of the Steam Engine" and Ewing's "Steam Engine."
Fall, 8.00. Professor Aldrich and Mr. Jones. 20 M.

38. Steam Boilers. Heating value of fuels, combustion, economical production of steam; application of theory and practice in the design of steam boilers, chimneys and accessories; steam piping and distribution. Prerequisite, Course 31, Mechanical Engineering. Lectures, recitations and laboratory, Course 47, Mechanical Engineering. Peabody & Miller's "Steam Boilers."
Half course. First term, Winter, 11.30. Mr. Jones. 20 M.

39. Heating and Ventilating. Principles, comparative merits and design of the various systems of ventilating, heating by hot air, hot water, steam and electricity; a careful study of the systems in the different University buildings. Prerequisite, Course 7, Physics. Lectures, recitations and laboratory, Course 47, Mechanical Engineering. Carpenter's "Heating and Ventilating Buildings."
Half course. Second term, Winter, 11.30. Mr. Jones. 20 M.

40. Heating and Ventilating. Special course for prospective heating and ventilating engineers. Open to those completing Course 39, Mechanical Engineering. Lectures and laboratory work. Time to suit convenience of students. Mr. Jones. 20 M.

41. Prime Movers. Expansive working of steam, principles of design, construction and operation of steam engines, pumping engines, motive-power machinery, turbines, hydraulic motors and machinery. Prerequisite, Courses 32 and 37, Mechanical Engineering. Lectures, recitations and laboratory, Course 47, Mechanical Engineering. Peabody's "Thermodynamics of the Steam Engine," Ewing's "Steam Engine," Barr's "Pumping Machinery," technical journals.
Winter, 10.30. Professor Aldrich and Mr. Jones. 20 M.

42. Power Transmission. Generation, transmission, distribution of electric power; comparison with other systems; economics of location, selection, arrangement, subdivision into units and installation of

steam and electric power. Bell's "Electric Power Transmission." Lectures and accompanying Course 48, Mechanical Engineering.

Spring, 8.00; 20 M.

43. Experimental Mechanics. The comparison of experimental results and determination of physical laws from observation; theory, calibration and use of slide rule and instruments for the measurement of length, area, volume, weight, power, speed, and pressure; experimental work in kinematics, statics, dynamics, mechanisms and machinery. Prerequisite or accompanying Course 2, Mechanics. One-third course. Carpenter's "Experimental Engineering." Fall, Saturday, 8 to 12; Summer, month of July, Monday, Wednesday, Friday, 1.30 to 5.30. Mr. Jones. 10 and 20 M.

44. Power Measurements. Efficiency tests of simple engines, pumps, dynamos, motors, and machinery of power transmission; measurements of power by Prony brake, rope brake, Alden absorption dynamometer, transmitting dynamometer; steam-engine indicator practice and simple valve-setting; determination of the quality of steam. Prerequisite or accompanying Course 12, Mechanics. One-third course. Carpenter's "Experimental Engineering" or Benjamin's "Mechanical Laboratory Practice." Winter, Saturday, 8 to 12; Summer, August 1 to 25, Monday, Wednesday, Friday, 1.30 to 5.30. Mr. Jones. 1 M.

45. Testing Materials of Engineering. Tensile, compressive and transverse tests of wrought iron, cast iron, steel and timber; transverse, compressive and absorption tests of stone and brick; tensile, compressive, specific gravity and absorption tests of cement; also tests for fineness, time of setting and constancy of volume; testing lubricating value of oils, including composition, vicosity, specific gravity, flash and burning tests, cold test and coefficient of friction. Prerequisite or accompanying Course 4, Mechanics. One-third course. Carpenter's "Experimental Engineering," Benjamin's "Mechanical Laboratory Practice," or Johnson's "Materials of Engineering."

Spring, Saturday, 8 to 12; Summer, August 25 to September 22, Monday, Wednesday, Friday, 1.30 to 5.30. Mr. Jones. 10 and 11 M.

46. Mechanical Engineering Laboratory. Experimental work in thermodynamics, tests of thermometers, indicators, injectors, calorimeters, steam and oil separators, non-conducting coverings, flow and quality of steam, coal calorimetry, analysis of chimney gases; practice in valve setting, behavior of steam in the cylinder; or such other work as may be assigned. To form a part of and time to be assigned from Course 37, Mechanical Engineering. Carpenter's "Experimental Engineering."

Fall, time as assigned. Mr. Jones. 1 and 12 M.

47. Mechanical Engineering Laboratory. Economy tests of simple and multiple expansion working of the steam-engine, condensing

and non-condensing; steam boilers, fired with gas and coal; steam heating apparatus; duty trials of steam pumps; efficiency tests of hydraulic motors, fans, blowers, etc.; application of Hirn's analysis to the steam engine; flow of water through pipes and orifices, calibration of water meters. Prerequisite, Course 46, Mechanical Engineering. To form a part of and time to be assigned from Courses 38, 39 and 41, Mechanical Engineering. Winter, time as assigned. Mr. Jones. I and II M.

48. Mechanical Engineering Laboratory. Combined tests of performances of boilers, engines and of electrical and other power transmission machinery; testing of plants away from the University when opportunity affords; special research work. Prerequisite, Course 47, Mechanical Engineering. To form a part of and time to be assigned from Course 42, Mechanical Engineering. Spring, time as assigned.
Professor Aldrich and Mr. Jones. I and II M.

49. Dynamo-Electric Machinery. Principles of design, construction and operation of dynamos, motors and transformers. Prerequisite, Course 10, Physics, and to accompany Course 52, Mechanical Engineering. Jackson's "Electro-Magnetism and the Construction of Dynamos," and "Alternating Currents and Alternating Current Machinery." Fall, 9.00; 20 M.

50. Electric Lighting. Principles of design, construction, installation and operation of electric-lighting systems; electrical distribution for lighting circuits; manufacture, care and use of arc and incandescent lamps. Prerequisite, Course 10, Physics, and to accompany Course 53, Mechanical Engineering. Crocker's "Electric Lighting."
Half course. Winter, 10.30; 20 M.

51. Electric Railroads. Principles of design, construction, installation, operation and management of electric railway machinery and electric railroad systems, and distribution for railway circuits. Prerequisite, Course 10, Physics, and to accompany Course 53, Mechanical Engineering. Bell's "Power Distribution for Electric Railroads."
Half course. Winter, 10.30; 20 M.

52, 53. Electrical Engineering Laboratory. Practical management of electrical machinery; couplings, generators; calibration of electrical engineering measuring instruments; switch-board tests; determination of efficiencies and characteristics in laboratory and commercial tests of dynamos and motors; comparison methods; investigation of losses; location of faults; testing arc and incandescent lighting circuits. Prerequisite, Course 9, Physics, and Course 44, Mechanical Engineering. To accompany Courses 49, 50, and 51, Mechanical Engineering. Time to be assigned from same. Parham & Shedd's "Shop and Road Testing of Dynamos and Motors." Fall, Winter, I and II M.

54. Thesis. Required of candidates for the degree of Bachelor of Science in Mechanical Engineering. Conference work. Spring, 10.30.

Courses for Graduates.

HOURS TO BE ARRANGED.

55. Steam Engineering. Prerequisite, Courses 37, 38, 41, Mechanical Engineering. Fall.

56. Electrical Engineering. Prerequisite, Course 10, Physics, and Course 49, Mechanical Engineering. Winter.

57. Mechanical Engineering Design. Prerequisite, Course 33, and to accompany Course 55, Mechanical Engineering. Fall.

58. Mechanical Engineering Design. Prerequisite, Course 33, and to accompany Course 56, Mechanical Engineering. Winter.

59. Mechanical Engineering Laboratory. Prerequisite, Courses 46, 47, 48, and to accompany Course 55, Mechanical Engineering. Fall.

60. Mechanical and Electrical Engineering Laboratory. Prerequisite, Course 59, and to accompany Course 56, Mechanical Engineering. Winter.

61. Mechanical Engineering Practice.—Lectures. Spring.

62. Mechanical Engineering Review and Reports. Lectures and field work. Spring.

63. Thesis. Required of candidates for the degree of Mechanical Engineer.

Mechanics and Applied Mathematics.

PROFESSOR EMORY.

1. Elementary Mechanics. The principles of rational mechanics with little use of the calculus, and from the physical standpoint. For students pursuing the two-year certificate Mechanical or Electrical course, and those preparing for the work of the artisan, foreman or draughtsman. Prerequisite, Trigonometry.

Summer, 8.00; Winter, 11.30; 2 P.

2. Kinematics and Dynamics. The mathematical study of motion and rest, including translation, rotation, vectors, uniform and variable velocities and accelerations, and the geometrical study of the motion of a material point. Dynamics, study of mass, density, moments and centers of mass, and the determination of centers of gravity, momentum, force and energy. Required of Civil and Mechanical Engineering Juniors. Prerequisite, Calculus. Fall, 9.00; 2 P.

3. Statics and Kinetics. Concurrent forces, stability of chimneys, towers, earth work, jointed frames, graphical methods and method of sections for determining stresses in structures, friction and con-

straints, principle of virtual work, theory of attraction and potential, kinetic and potential energy, momentum, impact, work, power, center of gyration, moments of inertia, kinetics of masses and problems in practical selective design. Required of all Civil and Mechanical Engineering Juniors. Prerequisite, Course 2. Winter, 9.00; 2 P.

4. **Applied Mechanics.** Strength of materials. Resistance and elasticity of materials, pipes, cylinders, and riveted joint, cantilever and simple beams, tension and compression, resilience, shear and torsion, strength of timbers, iron, steel, stone, cement, elastic limit, factors of safety. Design of simple structures. Required of all Civil and Mechanical Engineering Juniors. Prerequisite, Course 3.

Summer, Spring, 9.00; 2 P.

5. **Mechanics of Engineering.** An advanced course in the mechanics of engineering and of engineering materials, with designs of structures, machines and apparatus, involving their use and selection. For Seniors having preparation, and for graduate students.

6. **Consulting Engineering.** The study of engineering problems, *ensemble* and in detail, with estimates for installation and economical management. For graduates and Seniors with suitable preparation.

7. **Materials of Construction.** Strength and elasticity; safe loads; changes under different conditions, etc.

8. **Industrial Plants.** The economic study of industrial plants from the engineer's standpoint. Installation and management. For graduates. Half course.

9. **Applied Mathematics.** This course accompanies the Sophomore work in Pure Mathematics in the Engineering course, and is intended to furnish the applications of the Mathematics as a basis for the future engineering studies, and particularly as an introduction to the study of theoretical and applied Mechanics, being the mathematical study of motion, and the solution of differential equations as occurring in the theoretical Mechanics. Required of Civil Engineering Sophomores. Prerequisite, Analytical Geometry. Spring, 10.30; 2 P.

10. **Method of Least Squares.** Errors of observation; principle of probability; weight of observations; principle of least squares; probable errors of observations. Optional for Seniors and graduates. Prerequisite, Calculus. Half course; 2 P.

11. **Development and Utilization of Power.** Lecture course. History and development of the pumping engine, railroad engine, naval, steam, hot air, gas, oil, wind, and hydraulic engines for all classes of work; modern generator. Open to all students. Required of Civil Engineering Seniors and Mechanical Engineering Juniors, and optional for graduates. Fall, 8.00; 2 P.

12. **Development and Utilization of Power.** Text-book course. Mathematical study of the development of power, the Clausius, Ran-

kine, and physical methods of the development of power, measurement of power, testing of apparatus and generators, power-plant installation, and selective design. Complete calculations for power plant to perform some special work, such as water supply, coal handling, mine operation, etc. Prerequisites, Course 3 and Calculus. Required of all Senior Civil and Mining Engineers, and of all Junior Mechanical and Electrical Engineers, and optional for graduates. Summer, 11.30; 2 P.
Winter, 8.00; 2 P.

13. Development and Utilization of Power. Advanced consulting course in power with economical study from the standpoint of the engineer, owner, and contractor. Optional for graduates.
Half course; 2 P.

14. Engineering Calculus: The application of the simple rules of the Calculus to engineering formulae and processes of the Mechanics. Special course for and required of Sophomores in the two-year certificate Mechanical and Electrical course. Prerequisite, Analytical Geometry.
Summer, 10.30; Fall, 11.30; 2 P.

15. Mathematical Theory of Heat. Optional course for Seniors having preparation and for graduates. Prerequisite, Calculus.
Half course; 2 P.

16. Mathematical Theory of Electricity. Mathematical theory of the direct and alternating current, condensers, transformers, motors, etc. Optional for Seniors and graduates. Prerequisite, Calculus.
Half course; 2 P.

17. Hydraulic Motors. Mathematical study of hydraulic motors. Optional for Seniors and graduates. Prerequisite, Analytical Geometry.
Half course; 2 P.

18. Applied Mathematics. An advanced course in the applications of the Calculus to Engineering problems, introductory to differential equations. Half course; 2 P.

Summer Courses in Engineering and Mechanic Arts.

The following courses are offered in the respective departments of this College for the summer of 1898, beginning July 1:

Civil and Mining Engineering.

Projections and Descriptive Geometry.
Surveying,—Land, Topographical, Mine, and Railroad.
Masonry and Bridge Design.
Sanitary Engineering.

Mechanical Engineering and Mechanic Arts.

Mechanic Arts,—Woodworking, Pattern-making, Forging, Foundry, Tinsmithing and Pipe-fitting, and Machine Shop.

Mechanical and Machine Drawing, Machine Design.
Mechanism and Machinery, and Materials of Construction.
Experimental Mechanics, Power Measurements and Testing Materials.

Mechanics and Applied Mathematics.

Elementary and Applied Mechanics.
Development and Utilization of Power.
Engineering Calculus.

Engineering students, both regular and special, will be allowed to substitute for the actual hours of practical work in any one year an equivalent summer term period of six weeks or of twelve weeks of such equivalent work as they may be prepared to take.

During the Summer Quarter the Mechanical Building will be open for instruction and practical work, as follows: the metal-working shops and the drawing-room from 7.30 to 12, and 1.30 to 5.30; the woodworking shops and the engineering laboratories from 1.30 to 5.30. Special work in any of these lines may be taken under direction of the head of the department. Credit will be given for the amount of work satisfactorily done. Such work may be so arranged that students may complete any one of the several courses of practical work offered in six weeks of four hours of actual work daily, or in the twelve weeks of the summer quarter of two hours of actual work daily.

THE COLLEGE OF AGRICULTURE.

Staff of Instruction.

The Faculty.

JEROME HALL RAYMOND, Ph.D., President of the University, and Professor of Economics and Sociology.

THOMAS CLARK ATKESON, Ph.D., Dean, and Professor of Agriculture.

LEE CLEVELAND CORBETT, M.S., Professor of Horticulture and Forestry.

ANDREW DELMAR HOPKINS, Ph.D., Professor of Economic Entomology.

BERT HOLMES HITE, M.S., Professor of Agricultural Chemistry.

WILLIAM EARL RUMSEY, B.S.Agr., Instructor in Botany.

Other Instructors Giving Courses in this College.

ROBERT ALLEN ARMSTRONG, A.M., Professor of English Literature.

POWELL BENTON REYNOLDS, D.D., Professor of Philosophy.

JOHN ISHAM HARVEY, Ph.D., Professor of Modern Languages.

ALEXANDER REID WHITEHILL, Ph.D., Professor of Chemistry.

JAMES WILLIAM HARTIGAN, A.M., M.D., Professor of Biology.

SAMUEL B. BROWN, A.M., Professor of Geology and Mineralogy.

JAMES SCOTT STEWART, M.S., Professor of Mathematics.

WILLIAM SLEEPER ALDRICH, M.E., Professor of Mechanical Engineering and Mechanic Arts.

THOMAS EDWARD HODGES, A.M., Professor of Physics.

FREDERIC WILLIAM SANDERS, Ph.D., Assistant Professor of European History.

RICHARD ELLSWORTH FAST, LL.B., Instructor in American History and Political Science.

ROBERT LOVE MORRIS, B.S.C.E., Instructor in Civil and Mining Engineering.

THE COLLEGE OF AGRICULTURE.

The well-equipped mechanical department, the resources of the engineering and scientific departments of the University, together with their laboratories and scientific apparatus, and the libraries of the Agricultural Experiment Station and University, are at the command of the students in the College of Agriculture. The farm of the Agricultural Experiment Station, together with its gardens, experimental plants, laboratories and collections, will be available for students desiring to acquaint themselves with the practical and scientific methods of conducting agricultural pursuits and to investigate scientific questions relating to the progress and development of agriculture.

The farm is equipped with barns, stables and other buildings, and presents a variety of soils and conditions existing upon many of the farms of the state. Upon this farm are kept different varieties of farm animals and the most approved agricultural implements; and facilities are provided for studying the most economic methods of handling live stock and their products, including poultry.

The students who complete the course in this College are expected to be thoroughly trained and enthusiastic followers of their chosen profession, as well as cultivated citizens, with broad, general interests.

Expenses.

To West Virginia students tuition is free.

To students from other states tuition is $12.50 per quarter (twelve weeks).

The matriculation fee, payable by all students upon entering the University, is $5. Unless a student remains out of the University more than three years the matriculation fee is paid but once by each student.

The contingent fee, payable by all students, is $2 per quarter.

The dispensary fee is fifty cents per quarter. This fee is paid by all students, and entitles them to free medical attendance while at the University.

Board and room may be obtained in Morgantown at from $3 to $4 per week.

Courses of Study.

The College of Agriculture offers the following courses:

1. The regular four-year course, leading to the degree of Bachelor of Science in Agriculture (B.S.Agr.).

2. The two-year course, leading to the degree of Bachelor of Agriculture (B.Agr.).

3. The one-year course, which does not lead to any degree, but for the completion of which a certificate is given.

4. Special twelve-week courses, one for each of the four University quarters, including Agriculture, Horticulture, Floriculture, and Poultry Husbandry.

5. The Agricultural Home Reading Course, for those who cannot attend the University in person, but desire University guidance in carrying on a course of Agricultural study at home.

Requirements for Admission.

The Four-Year Course.

For the Year 1898.

Until June 1, 1899, the requirements for admission to the Freshman class of the four-year course, leading to the degree of Bachelor of Science in Agriculture, are as follows:

1. **History:**
   (a) General History,—Myers, or an equivalent;
   (b) United States History,—Fiske, or an equivalent.
2. **English:**
   (a) Spelling, punctuation, capitalization and paragraphing;
   (b) The leading facts of English grammar;
   (c) Composition,—ability to write good English;
   (d) Literature:

PART I. READING.—A certain number of books are set for reading. The candidate will be required to present evidence of a general knowledge of the subject-matter, and to answer simple questions on the lives of the authors. The form of examination will usually be the writing of a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number—perhaps ten or fifteen—set before him in the examination paper. The treatment of these topics is designed to test the candidate's power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. In place of a part or the whole of this test, the candidate may present an exercise book properly certified by his instructor, containing compositions or other written work done in connection with the reading of the books.

The following are the books for 1898:

Milton's "Paradise Lost" (Books I. and II.), Pope's "Iliad" (Books I. and XXII.), the Sir Roger de Coverly Papers in "The Spectator," Goldsmith's "The Vicar of Wakefield," Coleridge's "Ancient Mariner," Southey's "Life of Nelson," Carlyle's "Essay on Burns," Lowell's "Vision of Sir Launfal," Hawthorne's "The House of Seven Gables."

PART II. STUDY AND PRACTICE.—This part of the examination presupposes the thorough study of each of the works named below. The examination will be upon subject-matter, form and structure.

The books for this part of the examination for 1898 will be:

Shakespeare's "Macbeth," Burke's "Speech on Conciliation with America," De Quincey's "Revolt of the Tartars," Tennyson's "The Princess."

3. Mathematics:

(a) Arithmetic completed;
(b) Algebra to Logarithms,—Wells' University Algebra, or an equivalent;
(c) Plane Geometry,—Wells, or an equivalent.

4. Elementary Science:

(a) Physical Geography;
(b) Human Anatomy and Physiology;
(c) Physics;
(d) Botany.

The course in each to be not less than one term of twelve weeks, five recitations a week.

5. Latin:

(a) Grammar and Elementary Book,—Chase and Stuart, or an equivalent;
(b) Cæsar,—one book;
(c) Cicero,—three orations;
(d) Virgil,—one book of the Æneid.

Two years of daily recitations should be given to this preparatory work in Latin.

6. French or German.

FRENCH:

(a) Whitney's or Edgren's Grammar, and Super's or Rollin's Reader;
(b) Halevy's L'Abbe Constantin, or an equivalent amount of reading; or

GERMAN:

(a) Joynes-Meissner's or Thomas' Grammar, Joynes' or Harris' Reader;
(b) Schiller's Jungfrau von Orleans, or an equivalent amount of reading.

One year of daily recitations should be given to this preparatory work in French or German.

For the Year 1899.

After June 1, 1899, the requirements for admission will be as follows:

1. History, as above.

2. English.

The requirements in English will be the same in general as described above for the year 1898, except that the books for reading and for study and practice will be as follows:

PART I. READING.—Dryden's "Palamon and Arcite," Pope's "Iliad" (Books I., VI., XXII., and XXIV.), the Sir Roger de Coverly Papers in "The Spectator," Goldsmith's "The Vicar of Wakefield," Coleridge's "The Ancient Mariner," De Quincey's "The Flight of a Tartar Tribe," Cooper's "The Last of the Mohicans," Lowell's "The Vision of Sir Launfal," Hawthorne's "The House of Seven Gables."

PART II. STUDY AND PRACTICE.—Shakespeare's "Macbeth," Milton's "Paradise Lost" (Books I. and II.), Burke's "Speech on Conciliation with America," and Carlyle's "Essay on Burns."

3. Mathematics, as above.

4. Elementary Science, as above.

5. Latin:

(a) Grammar and Elementary Book,—Chase and Stuart, or an equivalent;
(b) Cæsar,—four books;
(c) Cicero,—five orations;
(d) Virgil,—six books.

Three years of daily recitations should be given to this preparatory work in Latin.

6. French or German.

Two years of daily recitations in one or both of these languages.

For the Year 1900.

In 1900, and thereafter, the requirements for admission will be as above described for the year 1899, except that Solid Geometry will be added to the requirements in Mathematics.

The Two-Year Course.

The requirements for admission to this course are as follows:

(1) **History,** (2) **English,** (3) **Mathematics,** (4) **Elementary Science,** as required for admission to the four-year course.

The One-Year Course.

No entrance requirements are made for this course.

The Twelve-Week Courses.

No entrance requirements are made for these courses.

Conditional Admission.

Students who have not had opportunity to make the preparation required for admission may enter the Preparatory School at the University and complete their preparation. If a student lacks only a part of the necessary preparation, he may be admitted conditionally, and complete his preparation while carrying on some of the studies of the College course.

Requirements for Degrees.

Bachelor of Science in Agriculture.

For this degree at least forty-two courses are required. A *course* means a course of five class exercises a week for one quarter (twelve weeks), or their equivalent in laboratory or other practical work. For the degree of Bachelor of Science in Agriculture the forty-two courses required are as follows:

2 courses in Mathematics.
3 courses in one Modern Language.
2 courses in Rhetoric.
1 course in English Literature.
2 courses in History.
1 course in Psychology.
1 course in Economics.
1 course in Sociology.
2 courses in Chemistry.
2 courses in Physics.
1 course in Biology.
1 course in Geology.
1 course in Agriculture.
1 course in Entomology.
2 courses in Economic Botany.
3 courses in Horticulture.
2 courses in Live Stock.
1 course in Surveying.
1 course in Agricultural Chemistry.
1 course in Rural Economics.
2 courses in Agricultural Science.
1 course in Economic Geology.
1 course in History of Agriculture.
1 course Thesis.

36 courses required.
6 courses elective, which may be taken in military work, gymnastics, drawing, and synoptic lectures.

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Schedule of Recitations.

Four-Year Course.

Freshman Year.

	FALL.	WINTER.	SPRING.
8.00	History of Agriculture	Fruit Culture	Vegetable Gardening
9.00	Chemistry	Chemistry	
10.30	Agriculture	Mathematics	Mathematics
11.30			Rural Economics

Sophomore Year.

8.00	Plant Breeding	Zoology	
9.00		Economics	Entomology
10.30	General Biology		AgriculturalChemistry
11.30	Rhetoric	Rhetoric	English Literature

Junior Year.

8.00			Agric'lt'r'l Science
9.00	German	German	German
10.30	Physics	Physics	Animal Industry
11.30	Surveying	Stock Breeding	

Senior Year.

8.00	Psychology	Sociology	
9.00	Agricultural Science		American History
10.30		Economic Botany	Economic Botany
11.30	General Geology	Modern History	EconomicGeology

Bachelor of Agriculture.

For this degree at least the following twenty-four courses are required:

2 courses in Rhetoric.
1 course in English Literature.
1 course in Economics.
2 courses in Chemistry.
1 course in Physics.
1 course in Biology.
1 course in Geology.
1 course in Agriculture.
1 course in Economic Entomology.
1 course in Economic Botany.
3 courses in Horticulture.
2 courses in Live Stock.
1 course in Surveying.
1 course in Agricultural Chemistry.
1 course in Rural Economics.
1 course in Agricultural Science.
1 course in Economic Geology.
1 course in History of Agriculture.
1 course Thesis.

24 courses.

Schedule of Recitations.

Two-Year Course.

First Year.

	FALL.	WINTER.	SPRING.
8.00	History of Agriculture	Fruit Culture	Vegetable Gardening
9.00	Chemistry	Chemistry	General Geology
10.30	Agriculture	Economic Botany	Agricultural Chemistry
11.30	Rhetoric	Rhetoric	Rural Economics

Second Year.

8.00	Plant Breeding	Zoology	Agric'lt'r'l Science
9.00	English Literature	Economics	Entomology
10.30	Physics	Thesis	Animal Industry
11.30	Surveying	Stock Breeding	Economic Geology

The One-Year Course.

This course consists of twelve courses selected from those included in the two and four-year courses. No entrance requirements are made for this course. A certificate indicating the work done will be granted on the completion of this course. It is confidently believed that many young men who are farmers, or expect to become farmers, will find it greatly to their advantage to devote one year to this course, if for any reason they cannot give the time necessary to complete a longer course.

Schedule of Recitations.

One-Year Course.

	FALL.	WINTER.	SPRING.
8.00	History of Agriculture	Fruit Culture	Vegetable Gardening or Agricultural Science
9.00	Chemistry	Chemistry	Entomology
10.30	Agriculture	Economic Botany	Animal Industry or Agricultural Chemistry
11.30	General Geology or Surveying	Stock Breeding	Economic Geology

One Quarter Courses.

Special twelve-week courses will be arranged for each of the four quarters, including Agriculture, Horticulture, Floriculture, and Poultry Husbandry.

These courses consist largely of practical work, and instruction in carrying on the operations of agriculture, gardening, floriculture, and handling of poultry, eggs, incubators, and young chickens.

No entrance examinations are required for these courses, and they are adapted to anyone who may wish to take them.

The object of these courses is to acquaint the students with the most elementary and practical operations in the branches of industry referred to. Besides the instruction given in lectures and by text-books, every student is required to carry out the actual practical work in the greenhouses, gardens, poultry-yards, or upon the farm. The instruction is practical and thorough, and adapted to the individual student.

DEPARTMENTS OF INSTRUCTION.

Only the technical courses are described here. For the general culture courses to be taken by students in the College of Agriculture, see the courses announced in the College of Arts and Sciences.

Agriculture.

PROFESSOR ATKESON.

1. Agriculture. Elementary principles of Agriculture; origin, cultivation, drainage, and classification of soils; indications of fertility; improvement of soils and their physical properties; principles of manures and manuring; production and handling of farm crops, and general study of farm machinery and buildings. Vorhees' "First Principles of Agriculture;" Chamberlain's "Tile Drainage." Fall, 10.30; A.

2. Stock Breeding. Principles of heredity; atavism, variation, selection, correlation, thoroughbred, in-and-in breeding, controlling sex, parental, mental, environment, and climatic influences. Miles' "Stock Breeding." Winter, 10.30; A.

3. Animal Industry. Stock feeding, feeding stuffs; the laws of animal nutrition; care and management of live stock, including poultry; history, characteristics, purposes and uses of the different breeds of domestic animals. Henry's "Feeds and Feeding;" Shaw's "Study of Breeds." Spring, 10.30; A.

4. Rural Economics. Lectures and recitations. Farming as a business; methods of keeping farm accounts; a brief study of the laws that directly concern the farmer; how the farmer is affected by the general industrial and social conditions which determine and modify an intelligent prosecution of his business; the mutual relations of agriculture and other industries; value and prices, with especial reference to land and agricultural products; system of land tenure; general principles of co-operation; co-operative distribution, production, banking, and insurance; farmers' organizations, their objects, aims and purposes; farmers' institutes, and best methods of conducting them; a thorough study and investigation of every question involved in practical and successful agriculture. Haigh's "Manual of Farm Law;" Atkeson's "Bookkeeping for Farmers;" Myrick's "How to Co-operate."
Winter, 8.00; A.

5. History of Agriculture. Lectures and recitations. A general history of Agriculture, beginning with the most ancient times, tracing the history of Agriculture and agricultural methods through all ages to the present, with a special study of the present practices and methods of competing with foreign countries. Hoskyn's "Inquiry Into the History of Agriculture;" De Candolle's "Origin of Cultivated Plants;" Prothero's "Pioneers and Progress of English Farming;" Flint's "One Hundred Years of Progress." Fall, 8.00; A.

6. Agricultural Science. Lectures and recitations. General relation of soil and air to plants. The atmosphere as a source of plant food; relations of water to the soil; movements of water in the soil; soils as chemical agents; manures and manuring; chemical fertilizers; potassic manures; magnesium, sodium, and lime compounds. Aikman's "Manures and Manuring." Spring, 8.00; A.

7. Advanced Agricultural Science. Farmyard manures; green manuring; humus and vegetable moulds; composts and modes of applying manures; theory of the rotation of crops; irrigation; growth of crops; maintenance of meadows and pasture lands, and a general discussion of the methods of extensive and intensive farming. Storer's "Agriculture." Fall, 9.00; A.

Horticulture and Forestry.

PROFESSOR CORBETT.

The instruction offered in the Department of Horticulture is made thoroughly practical, and special stress is laid upon those branches which are particularly suited to the conditions of West Virginia. Three courses are offered, as follows:

1. Fruit Culture. This course is intended to familiarize the student with all classes of fruits of the north temperate zone; their propagation, culture, and pruning, treatment to prevent injuries from insects and diseases. The classroom exercises are enforced by actual practice in budding, pruning, and planting trees, together with practical work in the preparation and application of insecticides and fungicides. A knowledge of the elements of Botany is almost a necessity, in order that the student make progress in this course. The instruction is mainly given through lectures, from which the students are required to take notes. The notes so taken are considered a part of the regular work of the course, and the fullness, neatness and accuracy with which this work is done is considered in making up the final grade of the student. The lectures are, so far as the equipment of the institution will permit, supplemented by practical exercises. Winter, 8.00; A.

2. Vegetable Gardening. Greenhouse construction and management. Lectures and recitations on the origin, propagation, cultivation, insect enemies, and fungus diseases of garden vegetables, together with practice in the planting and cultivation of these vegetables in the garden; the laying out of home grounds, and the construction and management of greenhouses. The requirements for this course are the same as for Course 1, and the class exercises are conducted in like manner.
Spring, 8.00; A.

3. Plant Breeding. This course is designed to meet the requirements of those who wish to prepare themselves to become florists, nurserymen or practical fruit growers, as well as those who expect to teach.

A study of the methods of plant breeding, evolution and heredity, as applied to cultivated plants, are its chief features. Prerequisites, Courses 1 and 2. Fall, 8.00; A.

4. Forestry. This course is devoted to the consideration of the forestry problems presented to the United States.

The importance of groves and shelter belts for the protection of growing crops, the necessity for the maintenance of a forest cover to insure adequate and lasting water supplies, and for the maintenance of equable climate, as well as the preservation of a future timber supply, are questions receiving consideration in this course. This work is elective and is open to any student in the University who has had elementary training in Botany. Lectures and recitations. Hours to be arranged with the instructor.

Economic Entomology.

PROFESSOR HOPKINS AND MR. RUMSEY.

1. Economic Entomology. This course will be conducted with a view to stimulating an interest in the study of insect life, and giving instruction along lines especially suited to the needs of the agricultural student. Text-books and laboratory demonstrations will be used to give such elementary instruction in economic and systematic Entomology as will give the student a general knowledge of the science, and instruction in the application of this knowledge will be given by means of practical field and research work. Spring, 9.00; A.

Agricultural Chemistry.

PROFESSOR HITE.

1. Agricultural Chemistry. A course of lectures on the application of chemical principles to farm economy. The relation of Chemistry to Agriculture; relation of the plant to soil and air; sources of plant food; osmosis and osmotic pressure; mechanism of plant nutrition; germination and elaboration of plant tissue. Soils: their origin, formation, composition, classification, deterioration, and improvement. Nitrification of soils. Prerequisite, general elementary Chemistry. Reference book, Johnson's "Agricultural Chemistry." Spring, 10.30; A.

2. Agricultural Chemical Analysis. This course includes the analysis of farm products, soils, ashes, fertilizers, mineral and drinking waters, etc. Prerequisites, Qualitative and Quantitative Analysis and Agricultural Chemistry 1. Laboratory guide, Wiley's "Principles and Practice of Agricultural Chemical Analysis."

Summer, Fall, Winter, Spring, 2.00; A.

Economic and Systematic Botany.

Mr. Rumsey.

Instruction in this department is offered in two courses, either or both of which may be taken, provided the student has had the course in elementary Botany, or its equivalent, as given in the Preparatory School of the University. The courses are designed especially for agricultural students, but will also be of value to all those interested in the subject of Botany, for the practical work in the laboratory will bring the student in closer touch with nature, and teach him to see and more fully understand the valuable and interesting phases of the plant world.

1. Economic Botany. (a) *Phanerogams.* Practical studies of seeds, seedlings, and the organs of mature plants. The growth, dissemination, duration, and eradication of weeds. Practice in the identification of species. (b) *Cryptogams.* An outline study of ferns, mosses, and fungi. Winter; lectures Tuesdays and Thursdays, 10.30; A. Laboratory work by appointment.

2. Economic and Systematic Botany. A critical and comparative study of Compositae, Graminae, and Rosaceae, together with an outline study of a small number of other representative orders and some of the more important groups of economic plants. A general study of the principles of classification and the history of botanical systems. Herbarium work on Phanerogams.

Spring; lectures Tuesdays and Thursdays, 10.30; A. Laboratory work by appointment.

Mechanic Arts.

Professor Aldrich.

All agricultural students are required to take the following course in Mechanic Arts:

Fall Quarter: Mechanical Engineering 1,—carpentry, joinery, bench work in wood, Friday, 1.30. 22 M.

Winter Quarter: Mechanical Engineering 2,—woodwork and woodturning, Friday, 1.30. 22 M.

Spring Quarter: Mechanical Engineering 3,—iron forging, Friday, 1.30.

Theses.

A thesis upon a subject in agriculture or some closely allied branch of study will be required of each student who graduates. The subject must be selected in conference with the Dean of the College of Agriculture, and will involve original investigation of a character intended to bring out the full abilities of the graduate.

Agricultural Society.

An Agricultural Society has been organized, which meets weekly, for the discussion of current and scientific topics in agriculture and related subjects. All agricultural students are expected to join this society and perform such work as its rules require.

Library.

The Agricultural Experiment Station Library, composed of thousands of books on agricultural subjects, and much of the current agricultural literature, is placed at the service of the students in the College of Agriculture.

Agricultural College.—Home Reading Course.

Since it is impossible for a great majority of the farmers of the state to attend the College of Agriculture, the Faculty has determined to do all it can to take the College to the farmer, by offering a systematic course of Home Reading in Agriculture. It is not expected that this course will in any sense take the place of a regular course at the College, but it is expected that everyone who faithfully pursues this carefully-prepared course upon technical agriculture, horticulture, stock-growing, rural economy, and kindred subjects, will be vastly benefited thereby.

This course is open to all, there being no requirements as to age, sex or previous preparation, and no examination is required for admission.

No fee is charged for registering students in this course.

The course may be begun *at any time*, and carried on as rapidly or as slowly as may be desirable. The subjects may be taken up in any order desired, and any part of the course taken without the rest. The whole course is divided into four divisions, but a regular course will consist of any two of the four divisions, or the student may elect any ten of the twenty subjects given.

Certificates.

Any student who has completed a subject will, upon notifying the College, receive an examination paper on that subject, to which written answers are to be returned, accompanied with a statement upon honor that the answers are the unaided work of the person sending them. These answers will be graded, and anyone receiving a grade of 75 per cent. or more in the studies of any two divisions will receive a suitable certificate signed by the President of the Board of Regents and the Dean of the College. For this certificate a charge of one dollar will be made, which is only sufficient to cover the actual cost of material and engraving.

Local Circles.

Individuals may take the course by themselves, wholly independent of anyone else. Much mutual benefit will be derived, however, by the formation of local reading circles of from five to twenty members, which may meet at regular times for study and discussion, and it is urged that this be done whenever possible.

It is suggested, also, that farmers' organizations—granges, farmers' clubs, etc.—may add to the interest and profit of their meetings by taking up the course or such portions of it as may be of special interest to them.

Only one set of books need be purchased for each reading circle, grange or club, although it is believed that a greater interest in the work will be secured by having at least one book for each member.

One book at a time may be purchased by the individual student or the reading circle, if circumstances make this desirable.

The text-books selected for this course are standard works, fully illustrated and neatly bound, revised and brought up to date. They contain in all cases a plain, practical presentation of the scientific principles underlying the best practices in the different departments of farming, stock-raising and gardening. The scientific terms used are fully explained.

All students are expected to ask for assistance whenever difficult problems are encountered or any passages are found in the books that are not perfectly clear.

Illustrative Material.

Special attention is called to the fact that the course of study here laid down is a study of the materials and processes going on upon the farm, and that the text-book should be used as an aid to direct personal observation and study of the things themselves and not as a substitute for it. In this respect an agricultural course has advantages over many others, and it is hoped that no one will forego these advantages and confine his work to the text-book alone.

Books at Reduced Rates.

Division I.—Crop Production.

	Postpaid.
Plant Life on the Farm—Masters	$ .75
Soils and Crops—Morrow & Hunt	.75
Manures and Manuring—Aikman	2.25
The Soil—King	.57
Tile Drainage—Chamberlain	.27

Division II.—Live Stock Production.

	Postpaid.
Manual of Cattle Feeding—Armsby	$1.29
Stock Breeding—Miles	1.13
Swine Husbandry—Coburn	1.17
American Dairying—Gurler	.75
Poultry Culture—Felch	1.13

Division III.—Horticulture and Floriculture.

The Propagation of Plants—Fuller	.99
The Fruit Garden—Barry	1.32
Practical Floriculture—Henderson	.99
Insects and Insecticides—Weed	1.00
Spraying—Lodeman	.75

Division IV.—Rural Economy.

Book-Keeping for Farmers—Atkeson	.15
Farm Law—Bennett	.50
How to Co-operate—Myrick	.50
The House Comfortable—Ormsbee	.75
Chemistry of Cookery—Williams	1.13

Directions for Ordering Books.

Arrangement has been made with The Orange Judd Co., 52-54 Lafayette Place, New York, by which the books required will be furnished *to students of this course only* at the prices named, which are a great reduction from regular retail rates. These prices include postage and are payable strictly in advance.

Orders for books should be addressed directly to The Orange Judd Co., and should in all cases be accompanied by a postal or express money order or draft, payable to the above firm, for the full amount of the order.

All communications in regard to the Agricultural Home Reading Course should be addressed to the Dean of the College of Agriculture.

THE WEST VIRGINIA AGRICULTURAL EXPERIMENT STATION.

Board of Control.

THE REGENTS OF THE WEST VIRGINIA UNIVERSITY.

STATION COMMITTEE.

GEORGE C. STURGISS. JAMES L. HAMILL.

STATION STAFF.

J. H. STEWART, A.M., Director and Agriculturist.

A. D. HOPKINS, Ph.D., Vice-Director and Entomologist.

B. H. HITE, M.S., Chemist.

L. C. CORBETT, M.S., Horticulturist.

W. E. RUMSEY, B.S.Agr., Assistant Entomologist.

T. F. WATSON, B.S., Assistant Chemist.

HORACE ATWOOD, B.S., Assistant Agriculturist.

G. H. A. KUNST, A.B., LL.B., Librarian.

M. ELIZABETH HEERMANS, Stenographer.

The Experiment Station is a distinct and separate department of the University, and was established by the Board of Regents in 1887, by authority of an act of Congress, known as the Hatch Act, which was passed on the 2d day of March of that year. The funds for carrying on the operations of the Station, with the exception of its meagre earnings, are derived wholly from the general government. The aforesaid act in section 2 fully states the object and purposes of the Experiment Station as follows:

"That it shall be the object and duty of said experiment stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and

water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaption and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective States and Territories."

Bulletins and annual reports are published frequently at the Station for gratuitous distribution, as far as the capacity of the Experiment Station will permit, and will be mailed regularly, free, to any citizen of the state applying for the same.

The Station invites correspondence, suggestions, and advice from farmers and others interested in this work, and all such, with reference to bulletins, experiments, or any matter relating to agriculture, will be welcomed and will receive careful and prompt attention. Correspondence may be addressed to the Director of the Station, or to individual members of the Station Staff.

THE COLLEGE OF LAW.

STAFF OF INSTRUCTION.

JEROME HALL RAYMOND, Ph.D., President.

OKEY JOHNSON, A.M., LL.B., Dean, and Professor of Constitutional and International Law, and the Law of Corporations.

ST. GEORGE TUCKER BROOKE, LL.D., Professor of Common and Statute Law.

WILLIAM P. WILLEY, A.M., Professor of Equity Jurisprudence and Commercial Law.

Any person is at liberty to enroll in this College and be admitted to attendance upon the lectures, whether he or she is a candidate for a degree or not. If the student is a candidate for a degree, certain entrance requirements are essential, as hereinafter set forth. If he intends to complete less than the whole course, or desires simply to prepare for examination for admission to the bar, no entrance requirements are made, but he will be awarded a certificate by the Law Faculty for the work done, and may suspend his studies at the end of any quarter without losing the benefit of his work.

Courses Offered in the College of Law.

The College of Law offers two courses:

1. The four-year degree course leading to the degree of Bachelor of Laws. The first two of the four years of this course are devoted to such general culture studies as are most essential to a lawyer; the last two years of the course are exclusively devoted to professional law work.

2. The two-year certificate course, which does not lead to any degree. Students who complete this course receive a certificate which admits them to practice law in the state of West Virginia. The studies taught in this course are the same as those taught in the Junior and Senior years (the prescribed professional course) in the four-year degree course.

Requirements for Admission.

The Two-Year Certificate Course.

No academic requirements are made of students who desire to enter this course, but the academic attainments of the applicant, as disclosed in his law examinations, will be taken into account in grading him on the examination for the certificate admitting him to practice law.

The Four-Year Degree Course

For the Year 1898.

Until June 1, 1899, the requirements for admission to the Freshman Class in this course are as follows:

1. History:

(a) General History,—Myers, or an equivalent;

(b) United States History,—Fiske, or an equivalent.

2. English:

(a) Spelling, punctuation, capitalization and paragraphing;

(b) The leading facts of English grammar;

(c) Composition—ability to write good English;

(d) Literature:

PART I. READING.—A certain number of books are set for reading. The candidate will be required to present evidence of a general knowledge of the subject-matter, and to answer simple questions on the lives of the authors. The form of examination will usually be the writing of a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number—perhaps ten or fifteen—set before him in the examination paper. The treatment of these topics is designed to test the candidate's power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. In place of a part or the whole of this test, the candidate may present an exercise book, properly certified by his instructor, containing compositions or other written work done in connection with the reading of the books.

The following are the books for 1898:

Milton's "Paradise Lost" (Books I. and II.), Pope's "Iliad" (Books I. and XXII.), the Sir Roger de Coverly Papers in "The Spectator," Goldsmith's "The Vicar of Wakefield," Coleridge's "Ancient Mariner," Southey's "Life of Nelson," Carlyle's "Essay on Burns," Lowell's "Vision of Sir Launfal," Hawthorne's "The House of Seven Gables."

PART II. STUDY AND PRACTICE.—This part of the examination presupposes the thorough study of each of the works named below. The examination will be upon subject-matter, form and structure.

The books for this part of the examination for 1898 will be:

Shakespeare's "Macbeth," Burke's "Speech on Conciliation with America," De Quincey's "Revolt of the Tartars," Tennyson's "The Princess."

3. Mathematics:

(a) Arithmetic completed;

(b) Algebra to Logarithms,—Wells' University Algebra, or an equivalent;

(c) Plane Geometry,—Wells, or an equivalent.

4. **Elementary Science:**
   (a) Physical Geography;
   (b) Human Anatomy and Physiology;
   (c) Physics;
   (d) Botany.

   The course in each to be not less than one term of twelve weeks, five recitations a week.

5. **Latin:**
   (a) Grammar and Elementary Book,—Chase and Stuart, or an equivalent;
   (b) Cæsar,—one book;
   (c) Cicero,—three orations;
   (d) Virgil,—one book of the Æneid.

   Two years of daily recitations should be given to this preparatory work in Latin.

6. **French or German or Greek.**

FRENCH:

   (a) Whitney's or Edgren's Grammar, and Super's or Rollin's Reader;
   (b) Halevy's L'Abbe Constantin, or an equivalent amount of reading; or

GERMAN:

   (a) Joynes-Meissner's or Thomas' Grammar, Joynes' or Harris' Reader;
   (b) Schiller's Jungfrau von Orleans, or an equivalent amount of reading; or

GREEK:

   (a) White's First Greek Book, or an equivalent;
   (b) Prose Composition;
   (c) Xenophon's Anabasis,—first book.

   One year of daily recitations should be given to this preparatory work in French or German or Greek.

For the Year 1899.

After June 1, 1899, the requirements for admission will be as follows:

1. **History,** as above.

2. **English.**

The requirements in English will be the same in general as described above for the year 1898, except that the books for reading and for study and practice will be as follows:

PART I. READING.—Dryden's "Palamon and Arcite," Pope's "Iliad" (Books I., VI., XXII., and XXIV.), the Sir Roger de Coverly Papers in "The Spectator," Goldsmith's "The Vicar of Wakefield," Coleridge's

"The Ancient Mariner," De Quincey's "The Flight of a Tartar Tribe," Cooper's "The Last of the Mohicans," Lowell's "The Vision of Sir Launfal," Hawthorne's "The House of Seven Gables."

PART II. STUDY AND PRACTICE.—Shakespeare's "Macbeth," Milton's "Paradise Lost" (Books I. and II.), Burke's "Speech on Conciliation with America." and Carlyle's "Essay on Burns."

3. **Mathematics,** as above.
4. **Elementary Science,** as above.
5. **Latin:**
   (a) Grammar and Elementary Book,—Chase and Stuart, or an equivalent;
   (b) Cæsar,—four books;
   (c) Cicero,—five orations;
   (d) Virgil,—six books.

   Three years of daily recitations should be given to this preparatory work in Latin.
6. **French or German or Greek.**

   Two years of daily recitations in one or two of these languages.

For the Year 1900.

In 1900, and thereafter, the requirements for admission will be as above described for the year 1899, except that Solid Geometry will be added to the requirements in Mathematics.

Conditional Admission.

Students who have not had opportunity to make the preparation required for admission may enter the Preparatory School at the University and complete their preparation. If a student lacks only a part of the necessary preparation he may be admitted conditionally, and complete his preparation while carrying on some of the studies of the Freshman year.

Advanced Standing.

Credit may be obtained for the branches taught in the Junior year, or a part of them, if the candidate is able to pass a satisfactory examination; but no student will in any case be given credit for more than the Junior year of the Law course. No certificate or degree will be given by the College of Law to any student who has not been in attendance upon the lectures for at least one University year (three quarters).

Degrees.

Bachelor of Arts in Law.

The degree of Bachelor of Arts in Law, which has been heretofore awarded, will not be offered or awarded after July 1, 1901. Students who

are now pursuing this course, and who may be able to complete it before the date named, will be awarded the degree, or they may choose between that degree and the degree of Bachelor of Laws.

Until July 1, 1899, the degree of Bachelor of Laws will be conferred on students who complete the two-year Professional Law course, in accordance with the regulations which have hitherto been in operation.

After July 1, 1899, the degree of Bachelor of Laws will be conferred only upon students who complete the regular four-year degree course as outlined below. The degree of Bachelor of Laws in this University admits the holder to practice law in any of the courts of this state without further examination.

Bachelor of Laws.

The four-year course leading to the degree of Bachelor of Laws consists of the following:

1 course in Mathematics.
3 courses in one foreign language.
2 courses in Rhetoric.
1 course in Development of the English Language.
2 courses in English Literature.
3 courses in History.
1 course in Political Science, not included in the professional work.
1 course in Biology.
1 laboratory course in Science.
1 course in Psychology.
1 course in Economics.
1 course in Sociology.

18 courses in general culture.
18 courses in Law, including a Thesis.

36 courses required.
6 Courses elective, which may be taken in military work, gymnastics, synoptic lectures and court practice.

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A course means a course of five class exercises a week for one quarter (twelve weeks), or their equivalent. Graduates of West Virginia University or other colleges or universities of recognized standing, and students who have completed two full years of a college course at a reputable college, are not required to take the eighteen courses in general culture studies enumerated above, but are admitted immediately to the Junior Class, and may complete the course and receive the degree in two years.

Courses of Instruction.

There is no prescribed order in which a student in the four-year degree course must take the courses above indicated, which are required

in the Freshman and Sophomore years. Each student will arrange with his class officer at the beginning of each quarter as to the courses he will take during that quarter. The class officer will use his judgment in the assignment of studies. It is his duty to see that each student under his charge takes his work in the order which will be most beneficial.

The studies of the Junior and Senior years constitute the professional course in Law. These studies are all required, and must be taken in a specified order unless special permission is obtained to vary that order. Students who are taking the two-year certificate course have the same studies as Juniors and Seniors in the four-year degree course.

The professional course offered by the College of Law is the full, complete, and comprehensive course of the modern law school, which will prepare students for the practice of law in any part of the United States.

The aim of the College of Law is to make not merely theoretical, but practical lawyers, who will go from the lecture-room to the bar thoroughly equipped for the active duties of the profession. It aims, moreover, while making thorough lawyers, to give the student a correct conception of the scope and character of the profession, and to start him in life with high ideals of professional ethics and dignity.

The methods of instruction consist of lectures, references to illustrative cases, examinations from approved text-books, quizzes on lectures, the drawing of the various legal papers requisite in the ordinary practice of the law, and practice in the moot courts. There are oral examinations daily on the subjects of the lectures and the text-books used, and comprehensive written examinations on each topic or branch of law as completed.

The professional part of the regular law course is designed to occupy the student two full years, and is divided between the College quarters in such a manner that students may with advantage enter at the beginning of any quarter and complete and obtain credit for the branches taught during that quarter. The following schedule shows the division of the quarters and subjects studied during the Junior and Senior years:

Professional Courses in Law.

Junior Year.

FALL QUARTER.

Blackstone.	Professor Brooke.		Full course. 8.00.
Contracts.	Professor Willey.	Half course.	First six weeks, 9.00.
Insurance.	Professor Willey.	Half course.	Last six weeks, 9.00.

Criminal Law. Professor Johnson.
Half course. First six weeks, 11.30.

Parliamentary Law. Professor Johnson.
Half course. Last six weeks, 11.30.

Winter Quarter.

Blackstone. Professor Brooke. Full course. 8.00.

Negotiable Paper. Professor Willey.
One-third course. First four weeks, 9.00.

Suretyship and Guaranty. Professor Willey.
One-third course. Second four weeks, 9.00.

Bailments. Professor Willey.
One-third course. Last four weeks, 9.00.

Criminal Procedure. Professor Johnson. Full course. 11.30.

Spring Quarter.

International Law. Professor Johnson. Full course. 8.00.

Evidence. Professor Willey. One-third course. First four weeks, 9.00.

Sales. Professor Willey. One-third course. Second four weeks, 9.00.

Partnership. Professor Willey.
One-third course. Last four weeks, 9.00.

***Engineering Jurisprudence.** Professor Willey.
Half course. First six weeks, 10.30.

Agency. Professor Johnson. Half course. First six weeks, 11.30.

Damages. Professor Johnson. Half course. Second six weeks, 11.30.

Senior Year.

Fall Quarter.

Corporations. Professor Johnson. Full course. 9.00.

Common Law Pleading and Practice. Professor Brooke.
Full course. 10.30.

Equity and Equity Pleading. Professor Willey. Full course. 11.30.

Winter Quarter.

Constitutional Law. Professor Johnson. Full course. 9.00.

Real Property. Professor Brooke. Full course. 10.30.

Equity and Equity Pleading. Professor Willey. Full course. 11.30.

Court Practice. Professors Johnson, Brooke, Willey. Half course.

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*Elective. This course is not required of candidates for a law degree, and is inserted here only to show the time at which it is given.

SPRING QUARTER.

Torts. Professor Brooke. Full course. 10.30.

The Young Lawyer in Practice. Professor Johnson. Full course. 11.30.

Court Practice. Professors Johnson, Brooke, Willey. Half course.

Thesis.

SUMMER QUARTER.

In the Summer Quarter, 1898, the following courses will be given:

Criminal Law. Professor Johnson. Half course. First term, 9.00; 14 U.

Criminal Procedure. Professor Johnson. Half course. Second term, 9.00; 14 U.

Constitutional Law. Professor Johnson. Full course. 11.30; 14 U.

Blackstone. Professor Brooke. Full course. 8.00; 11 U.

Common Law Pleading. Professor Brooke. Full course. 10.30; 11 U.

Text Books.

The text-books used in the course are carefully selected and are such as will be useful to the student throughout his professional career. They are all kept at the University and sold to the students at a discount from the regular retail prices. They are as follows:

Blackstone's Commentaries,
Clark on Contracts,
Elliott on Insurance,
Clark on Criminal Law,
Clark on Criminal Procedure,
Norton on Negotiable Paper,
Hale on Bailments,
Huffcut on Agency,
Hale on Damages,
Cooley's Principles of the Constitution,
Shipman's Common Law Pleading and Equity Pleading,
Brooke's Notes on Pleading and Practice in West Virginia,
Clark on Corporations,
Fetter's Equity,
Williams' Real Property,
Glenn's International Law,
Pollock on Torts,
Underhill's Evidence,
Tiffany on Sales,
George on Partnership,
Robert's Rules of Order.

Expenses.

To West Virginia students tuition is free.

To students from other states tuition is $8 per quarter (twelve weeks).

The matriculation fee, payable by all students upon entering the University, is $5. Unless a student remains out of the University more than three years the matriculation fee is paid but once by each student.

The contingent fee, payable by all students, is $2 per quarter.

The dispensary fee is fifty cents per quarter. This fee is paid by all students, and entitles them to free medical attendance while at the University.

Board and room may be obtained in Morgantown at from $3 to $4 per week.

The text-books absolutely essential to the student in pursuing the prescribed course of study are not numerous or costly, and are such as will be useful to him throughout his professional career.

Examinations for Admission to the Bar.

It is made the duty of the Law Faculty by the law of the state to examine all applicants for admission to practice law. These examinations are held at the University on the first Wednesdays in February, May, August, and November.

The only requirement for admission to these examinations is that the applicant shall have studied law for two years either in private or at some law school. The examination covers the branches taught in the Junior and Senior years (the prescribed professional course) in this Law College.

Advantages of a University Law Course.

The increasing favor with which law schools are regarded is due to the higher standard of preparation necessary to enable a lawyer to attain eminence in the profession, as compared with a past age. The lawyer who now aspires to occupy a high position at the bar must be thoroughly equipped. The competition he must meet demands a broad culture, scholarly discipline and a thorough mastery of the principles of law. Law schools have largely contributed to the elevation of the standard. They are now regarded as essential in the legal profession as the medical college and theological seminary are to the medical and clerical professions.

The advantages of a university law course can scarcely be overestimated to the young man who aspires to become thoroughly fitted for the profession of law.

The almost universal experience is that when a young man sits down in a law office to prepare for the bar he becomes impatient to engage in the active business of his profession with which he is surrounded. He

makes haste to finish rather than master the course. The active practitioner under whom he is reading is engrossed with the cares of his business and gives him but little attention. He reads in a superficial manner enough branches to enable him to secure license to practice, believing that he will have time enough when he is already admitted to the bar to finish his studies. But the groundwork of a successful professional career is forever neglected, as a rule, constantly proving the old maxim that "he who is not a good lawyer when he goes to the bar will seldom be a good one afterward."

The University course brings the student in constant association with those who are making mental discipline a business; it surrounds him with influences that are elevating and refining; produces habits of application which he will seldom acquire in any other place, and without which he will never make a lawyer.

The advantages of access to a large and well-selected law and miscellaneous library, and the valuable drill of the Literary Societies and Moot Courts are of no small consideration.

Moot Courts.

However familiar the student may be with the principles and theories of law in all its branches, he will be more or less awkward and confused when he goes to the bar and attempts for the first time to make a practical application of legal remedies, unless he has been previously drilled on this behalf. The Moot Court supplies, as well as anything other than a judicial tribunal can do, the drill and discipline necessary to prepare the student for the trial tables. In these courts he is taught to apply legal remedies according to the common law and chancery systems of practice; to bring suits; draw papers, pleadings, briefs, etc., and take the various steps incident to bringing a cause to trial, and then to try it according to the rules of evidence, including the argument, charge, verdict, motion in arrest of judgment, writ of error, etc. The Moot Court is organized and conducted in strict conformity to the practice of the regular courts in all its details. The students themselves act respectively as counsel, jurors, witnesses and officers of the court, thus learning by actual doing all the forms of court practice; while a professor sits as judge, with the double aim of illustrating the legal principle involved and explaining the rules of practice. The grammatical accuracy, rhetoric, elocution and courtesy of deportment of students also come under review by the professor, and young men are thus fitted to appear and conduct themselves at the bar as gentlemen and scholars as well as lawyers. The system of Moot Court is thorough.

Each of the professors holds court once a week, in his room, for the trial of law cases.

There is a Supreme Court of Appeals, composed of all three professors, the Dean sitting as president of the court, to which all appeals from

decrees and writs of error to judgment rendered in the three several Circuit Courts, may be taken. The system works admirably, and gives the student the practice in all the courts, following his case from the Circuit Court, where it is brought, to the Supreme Court of Appeals, which determines finally all cases. Trials are occasionally held in Commencement Hall, and are open to the public.

Eminent Opinions.

The time has gone by when an eminent lawyer, in full practice, can take a class of students into his office and become their teacher. Once that was practicable, but now it is not. The consequence is that law schools are now a necessity.—The Late Chief Justice Waite.

There is little, if any, dispute now as to the relative merit of education by means of law schools and that to be got by mere practical training or apprenticeship as an attorney's clerk. Without disparagement of mere practical advantages, the verdict of the best informed is in favor of the best schools.—Report of the Committee on Legal Education to the American Bar Association, August 21, 1879, at Saratoga, New York.

Professor Bryce, in "The American Commonwealth," attributes the superior attainments of the members of the legal profession in the United States "to the extraordinary excellence of many of the law schools."

Mr. Herron, of Dublin, in his work on the history of Jurisprudence, declares that in the matter of legal reform, and in that of legal authorship, the United States have surpassed England, and he attributes the fact "to the superior legal education which the American lawyers receive and to the schools of law established throughout the United States."

SCHOOL OF MUSIC.

Staff of Instruction.

JEROME HALL RAYMOND, Ph.D., President of the University.
CHARLES ALFRED ELLENBERGER, Director, and Professor of Music.
RUSSELL McMURPHY, Instructor on the Piano.
FRANK WILLIAM KEENE, Instructor on the Violin and other stringed instruments.
GRACE MARTIN, B.M., Assistant on the Piano.
————————, Instructor on Brass and Wood Wind Instruments.

Origin and Purpose.

The School of Music owes its inception to the need, long felt by the patrons and friends of the University, of a well-equipped department of Music, in connection with the other departments, where young men and women of the state might have the opportunity of securing thorough musical training with other necessary educational advantages, and at reasonable cost. It is also a recognized fact that the æsthetic influence of a good School of Music upon the student body in general is most beneficial.

The instruction in the School of Music is based upon the most approved and practical modern methods in Piano-forte and Organ playing, Voice Culture, Violin, Mandolin, Guitar, Banjo, Cornet, Clarionet and other Brass and Reed Band and Orchestral instruments, Harmony, Counterpoint, Theory, Musical History, Composition, Orchestration, Sight Singing and kindred branches. A distinguishing feature of this department is the cultivation of those allied branches which, in connection with the special courses, go to make the student not merely a trained executant, but a broad and liberal musician in the best sense of the word.

Special Advantages.

Many advantages accrue to the student in a School of Music connected with a University. Opportunties are afforded of studying in the various other departments, thus securing to the Music student a symmetrical education, literary and scientific, as well as musical. On the other hand, the existence of a department of Music affords advantages in musical training to the students in all the other departments.

Credit for Music on College Courses.

By special action of the University faculty a certain amount of credit is allowed toward baccalaureate degrees for work in Music.

1. A candidate for the degree of Bachelor of Arts or Bachelor of Science may elect three courses in Music to be credited toward the degree.

2. A candidate for the degree of Bachelor of Philosophy may elect five courses in Music to be credited toward the degree.

3. A candidate for the degree of Bachelor of Letters may elect six courses in Music to be credited toward the degree.

4. At least two of the courses in Music for which credit is given must be in the Science of Music,—that is, in Harmony, or in Counterpoint, or in the Theory of Music, or in Analysis.

5. No credit toward degrees will be given for the first three courses in Piano, Violin or other stringed instruments, or Voice.

Building and Equipment.

The School of Music occupies a building fitted up especially for its needs. The rooms both for teaching and practice purposes are large, with high ceilings, sound-proof partition walls, polished oak flooring, electric light, and steam heat. There is also a comfortable reception-room, where students may rest while waiting for their lesson periods. Surrounding the building upon all sides the scenery is superb,—campus, romantic ravine, and winding river, with steep, wooded banks. The equipment of pianos is of the best, and all the instruments are new. The large and commodious Chapel, seating 1600 people, contains a fine, new Knabe Concert Grand Piano, and in the near future will also have a large Pipe Organ. Excellent opportunities are thus afforded for recital and concert work.

Time Required to Complete a Grade.

Attention is called to the fact that the time required to complete a grade depends upon the student's talent, age, previous instruction, and amount of daily practice. With good health, and thoroughly systematized work, a grade (three courses) should be completed in a year.

Requirements for Diplomas and Certificates.

A course in sight reading, memorizing, and technical work is followed through all the courses. A knowledge of Harmony, Theory and Musical History is essential to an intelligent interpretation of Music. Elementary study in these three branches is required for completion of the third grade. Students completing the fourth grade will be entitled to a certificate. A candidate for a diploma must complete the required

courses of study of some instrument or Voice, together with the courses in Harmony and Theory, passing satisfactory examinations thereon, and must perform in public during the last year of study an entire concert program to test his or her ability to interpret correctly the different schools of composition. Candidates for a diploma in Voice Culture, in addition to the above, must satisfactorily complete the first two grades in the Piano course, and at least two courses in German and Italian.

Recitals.

A very necessary part of a student's education is the development of confidence, which can only be acquired by appearing occasionally before an audience. To meet this need, Students' Recitals have been established, some of which are open to the public, others only to the intimate friends of the participants. Advanced students from time to time appear before the large student body at the daily chapel service. There are also classroom recitals, at which different styles of compositions are analyzed and rendered, tracing the historic development from the Classic to the Romantic period.

Tuition.

Students whose work is all in the School of Music are not required to pay the usual University fees, but are entitled to all the privileges of the other University students, including the numerous public lectures, which are given frequently by eminent specialists.

Tuition for a term of twelve weeks, two lessons per week (twenty-four lessons):

Piano (with Head of Department):
- 2 lessons a week, of 30 minutes each..... $18.00
- 2 lessons a week, of 60 minutes, class of 2, each..... 18.00
- 2 lessons a week, of 60 minutes, class of 3, each..... 13.00
- 2 lessons a week, of 60 minutes, class of 4, each..... 10.00

Piano (with Assistant):
- 2 lessons a week, of 30 minutes each..... 12.00
- 2 lessons a week, of 60 minutes, class of 2, each..... 12.00
- 2 lessons a week, of 60 minutes, class of 3, each..... 9.00
- 2 lessons a week, of 60 minutes, class of 4, each..... 8.00

Voice Culture (with the Director):
- 2 lessons a week, of 30 minutes each..... 18.00

Violin (with Head of Department):
- 2 lessons a week, of 30 minutes each..... 18.00

Mandolin, Guitar, Banjo, and Band Instruments:
- 2 lessons a week, of 30 minutes each..... 12.00
- 2 lessons a week, of 60 minutes, class of 2, each..... 12.00
- 2 lessons a week, of 60 minutes, class of 3, each..... 9.00

There will be no deduction for lessons missed by pupils unless caused by continued illness.

Pianos for practice one hour per day will be furnished at $3.50 per quarter of twelve weeks; two hours per day, $6 per quarter; three hours per day, $7.50 per quarter.

Bills for music are rendered monthly.

All tuition and other dues are payable in advance to the Director of the School of Music.

Free Advantages.

The Recitals and Concerts by the Faculty and advanced students of the School of Music are all free to students in this department.

A feature of the daily Chapel exercises is either a special number by a member of the Faculty of the School of Music, or a reading or address by some member of the University Faculty or some distinguished visitor.

The Choral Society, Glee Club, Women's Chorus, the Military Band, Orchestra, and Mandolin, Guitar, and Banjo Club are all open to those students of the School of Music who are competent to enter them.

The courses in sight reading, memorizing, and technical work, with elementary work in Harmony, Theory, and Musical History, are free to students of the School of Music.

Hon. Richard Randolph McMahon, of Harper's Ferry, a Regent of the University, has offered a prize of twenty-five dollars to the student in the School of Music making the most progress this year.

Sheet music is furnished at a liberal discount.

The Library contains a large number of standard works upon music, all of which are available to students.

Courses of Instruction.

All the courses here announced are given every quarter, and may be begun at any time during the year, as the instruction is largely private.

Piano.

MISS MCMURPHY AND MISS MARTIN.

1, 2, 3. FIRST GRADE.—Emery's "Foundation Studies;" Studies by Gurlitt, Biehl, Bertini; Lynes' "Advancement Studies;" Compositions by Reinecke, Rohde, Emery, Lynes, Kullak, and others.

4, 5, 6. SECOND GRADE.—Studies by Czerny, Loeschorn, Heller, Krause; Clementi's Sonatinas; Kunz's Canons; "Schumann Album for the Young;" Compositions by Krause, Kullak, Emery, and other modern writers.

7, 8, 9. THIRD GRADE.—Czerny's "Forty Daily Studies;" Octave Studies, by Turner and Kullak; Bach's "Little Preludes and Fugues,"

and "Two Part Inventions;" Easier Sonatas of Haydn and Mozart; Mendelssohn's "Songs Without Words;" Compositions by Godard, Schumann, and others.

10, 11, 12. FOURTH GRADE.—Moscheles' opus 70; Kullak's "Octave Studies;" Clementi's "Gradus ad Parnassum;" Bach's Suites and "Three Part Inventions;" Sonatas by Haydn, Mozart, Beethoven; Compositions by Chopin, Schumann, Mendelssohn, Raff, Moszkowski, Schubert, Grieg, and others.

13, 14, 15. FIFTH GRADE.—Chopin's op. 10 and 25, and Preludes; Bach's "Preludes and Fugues;" Sonatas by Beethoven; Concertos by Beethoven, Mozart, Mendelssohn; Compositions by Liszt, Henselt, Chopin, Weber, and others; Concertos for two pianos.

Organ.

PROFESSOR ELLENBERGER.

Organ students are expected to finish at least the first two grades in Piano before beginning Organ work.

1, 2, 3. THIRD GRADE.—Stainer's "Organ Primer;" Whiting's "First Studies;" "Rink-Best Organ School," Book III.; Bach's "Easy Preludes and Fugues;" Whiting's "The Organist;" Hymn Tunes and Registration; Compositions by Thayer, Silas, Volckmar, Guilmant, Lemmens, and others.

4, 5, 6. FOURTH GRADE.—"Rink-Best Organ School," Books IV. and V.; Bach's "Preludes and Fugues;" Accompaniment; Eddy's "Church and Concert Organist;" Anthems; Mendelssohn's Sonatas; Compositions by Guilmant, Merkle, Bach, and others; Whiting's "Twenty Preludes and Postludes."

7, 8, 9. FIFTH GRADE.—Bach's "Preludes and Fugues;" Sonatas by Mendelssohn, Guilmant, Merkle, Rheinberger; Compositions by modern composers.

Voice.

PROFESSOR ELLENBERGER.

1, 2, 3. FIRST GRADE.—Breathing, control of throat, jaws, tongue, lips, etc.; tone placing; dictation exercises for special needs of individual voices; selected technical exercises; English Ballads and Songs.

4, 5, 6. SECOND GRADE.—Breathing, tone placing, dictation exercises, with selected technical exercises from Marchesi, Bordesi, Nava, Panofka, Concone; English Ballads and Songs; German Lieder.

7, 8, 9. THIRD GRADE.—Breathing, tone placing, dictation exercises, with selected technical exercises from Bordesi, Marchesi, Sieber; English and Italian Songs; German Lieder; English Oratorio; Concert Songs.

10, 11, 12. FOURTH GRADE.—Dictation exercises, with selected technical exercises from Bordogni, Sieber, Marchesi, Lamperti, etc.; English Oratorio; Italian and German Operatic selections; German Lieder; Concert Songs.

13, 14, 15. FIFTH GRADE.—Dictation exercises, with advanced technical exercises from Bordogni, Marchesi, Lamperti, Sieber, etc.; English Oratorio; Italian, French, and German Opera; Bravura Singing.

Violin.

MR. KEENE.

1, 2, 3. FIRST GRADE.—Tour's "Primer;" exercises in the First Position; development of tone; Pleyel's duets, opus 8.

4, 5, 6. SECOND GRADE.—Schradieck's "Technical School," Book I.; First, Second, and Third Positions; Kaiser's Studies, opus 20; Pleyel's duets, opus 48; Solos in First Position.

7, 8, 9. THIRD GRADE.—Schradieck's exercises in the higher Positions; Kreutzer's Etudes; Pleyel's duets, opus 59; Fantasias by Singelee, Alard, etc.; Airs Varie, DeBeriot.

10, 11, 12. FOURTH GRADE.—First Part of Fiorilio's Etudes; Maza's duets, opus 71; Krommer's Etudes, opus 22; Concertos by DeBeriot; Solos by Hauser, Wienawski, etc.

13, 14, 15. FIFTH GRADE.—Fiorilio's Etudes continued; Fantasias by Vieuxtemps, Alard, etc.; Concertos by Mendelssohn, Beethoven, Bruch, Sarasate.

Advanced students may study *ensemble* works in conjunction with pupils from the Piano department. They are also admitted to the orchestra.

Guitar, Banjo, and Mandolin.

MR. KEENE.

In response to the demand growing out of the popularity of these instruments, courses are offered in each. Special attention is given to the development of a systematic fingering for both hands, tone, touch, and accurate execution.

Text-books for Guitar: Holland, Carcassi, Carulli, Sor.

Text-books for Banjo: Dobson, Stewart, Henning.

Text-books for Mandolin: "Cristofaro's Method."

Selected Solos.

The courses outlined for the various branches are simply intended to represent, in a general way, the character of each year's work. It is not intended that each student shall take all of the studies mentioned in the branch he wishes to pursue, and equivalents are liberally used to suit individual cases.

Harmony.

PROFESSOR ELLENBERGER AND MISS MCMURPHY.

A thorough knowledge of elementary Harmony is absolutely essential to every musician, whether artist or amateur. The School of Music offers a course of study covering one year, which includes a knowledge of intervals and scales, formation and progression of chords, treatment of suspensions, open harmony, etc., with practical work in harmonizing chants, and chorals, and analyzing simple compositions. Emery's "Elements of Harmony" is the text-book.

1. Intervals, scales, formation and progression of common chords, with their inversions; seventh chords, modulations, harmonizing bass progressions, close harmony.

2. Modulations, Suspensions, Open Harmony, Appogiatura, and passing notes, Organ point, harmonizing melodies.

3. Harmonizing melodies, Double Chant, Chorals, etc.

Counterpoint.

PROFESSOR ELLENBERGER.

Three courses.

Theory of Music.

PROFESSOR ELLENBERGER AND MISS MCMURPHY.

1, 2, 3. Acoustics; compass and characteristic effects of all orchestral and band instruments; history of Notation, and of the Piano and Organ. Outlines of musical forms, their origin and development. History of the different Schools of Music, etc. Elson's "Theory of Music," and Naumann's or Fillmore's "History of Music" are the text-books used. The instruction is given largely by means of lectures and blackboard demonstrations, the text-book being used chiefly for reference.

Analysis and Choral Work.

PROFESSOR ELLENBERGER.

1, 2, 3. This very important but generally neglected branch of musical education is given special attention. The required work fills three courses (one year), and includes the rudiments of music, theory and practice in staff, clefs, notation, scales (major and minor), transpositions, singing at sight plain harmonies, and chorus work (Women's Chorus, Male Glee Club, or Choral Society).

Morgantown has many natural advantages as a summer home, and with the newly adopted four-quarter system of the University, and its regular summer session, affords music students the unusual opportunity of uninterrupted work throughout the entire year.

Students will be received at any time, but not for less than one quarter.

Students of the School of Music are not allowed to take part in public programs without the consent of their respective teachers.

All correspondence regarding this department should be addressed to

C. A. ELLENBERGER,
Director of the School of Music,
Morgantown, W. Va.

THE DEPARTMENT OF DRAWING AND PAINTING.

MRS. HUBBARD.

The University provides a large, well-lighted studio, containing drawing stands, easels, china kiln, etc., and a large collection of casts and models from the antique. Students also have access to the University museum for study, and to the University library for works on the history and development of art.

Students may enter for class or private lessons at any time. A term consists of twenty-four lessons—four lessons per week for six weeks, or, if desired, two lessons per week for twelve weeks.

Moderate special fees, which may be learned on application, are charged students in this department, but the regular University fees are not charged Art students.

The object of this department is to afford thorough and systematic instruction in the fine and decorative arts as developed in Drawing and Painting. The following courses are given:

1. Regular Art Course. This course of four years is so planned that the student may acquire not only the technique of drawing and painting, but also a general art education and a degree of æsthetic culture tending to develop individual powers of composition and art expression.

The work of the first year includes light and shade drawing from the antique, study of perspective, sketching from nature, drawings of still-life, and study of form carried out in clay modeling.

The second year continues the drawing from cast in charcoal and crayon, copying the head, mask and ornament from the antique. Color-studies in water-colors and oil are given alternating with the work in black and white.

During the third and fourth years the student copies the bust and full-length figure from the antique, paints from the draped model in the life-class, and studies portrait painting and composition or sketching from nature and landscape painting.

Class lectures are given upon perspective, anatomy, composition, and art history. To those taking this course studio privileges for practice and special study will be given. The course includes painting in oil, water-color, pastel or china paints.

2. Normal Art Course. This is designed for teachers in public or normal schools. It comprises free-hand drawing of ornament, mask,

and head from the antique; study of still-life; perspective and mechanical drawing; sketching; study of design; study of color and form developed in water-color painting and clay-modeling.

Class lectures are given on the teaching of form and color, and the history of art.

Students should spend two years in pursuing this course; but to suit individual needs, the course may be shortened, and what is most essential will be given in the time available.

Special Decorative Courses.

3. Oil Painting. Study from the antique, painting from still-life, sketching, landscape painting, figure painting.

4. Water-Color Painting. Studies of color and technique, painting still-life, sketching, landscape and figure painting, and portrait study.

5. Pastel Painting. Preliminary drawing and studies from cast, pastel drawings from still-life and the model, landscape and marine studies adapted to this medium. Portrait painting in pastel.

6. China Painting. Studies of colors and media employed, painting of flowers, fruits, etc., suitable for decoration; study of design. Articles decorated may be fired in the University kiln.

Historical lectures on Architecture, Sculpture and Painting will be given at intervals for all connected with the department.

Information concerning the work of this department may be had upon application to the Instructor at the Art Room, 12 Science Hall.

THE DEPARTMENT OF PUBLIC SPEAKING AND ELOCUTION.

MR. WHYTE, ASSISTED BY SPECIAL LECTURERS

A special fee of five dollars is charged for each course in this department, but students who take Elocution and Public Speaking only are not required to pay the regular University fees.

1. Extempore Speaking. A course especially valuable to those who expect to use public speaking in their profession. A study of the various forms of discourse by lectures and practical work. Vocal culture and gesture. Individual criticism. Fall, 4.00.

2. Extempore Speaking. A continuation of Course 1. Winter, 4.00.

3. Extempore Speaking. A continuation of Course 2. Spring, 4.00.

4. Vocal Expression or Elocution. A study of the elements in reading aloud. Purpose in utterance, emotion, etc. A practical study of tone-color, force, melody, pitch, etc. Frequent delivery of selections showing mental and emotional power. Chamberlain and Clark's "Principles of Vocal Expression." Fall, 3.00.

5. Vocal Expression or Elocution. A continuation of Course 4. Winter, 3.00.

6. Vocal Expression or Elocution. A continuation of Course 5. Spring, 3.00.

7. Elocution. Open to all students; especially adapted to beginners. This course includes the principles of expression, individual voice culture, physical culture, and drill in action. Professor Neil. Summer.

8. Literary Analysis and Recitation. The entire class is required to analyze and properly interpret a number of selections from standard authors, and each student will prepare and recite such selections as the instructor may assign. Professor Neil. Summer.

9. Argumentation and Debate. This course will be opened by a series of lectures on extempore speaking, parliamentary law, forensic oratory, and the laws of argumentation. Then will follow prescribed reading and preparation of briefs, extempore discussions, and practical debates between members of the class. Professor Neil. Summer.

Private Instruction.

Those who desire to make a special study of Elocution may arrange for private instruction, the character of which will depend on the needs of the individual students. Special rates are made to societies and candidates for any of the University contests.

Mr. Whyte. Fall, Winter, Spring.
Professor Neil. Summer.

THE COMMERCIAL SCHOOL.

DENNIS MARTIN WILLIS, Principal and Instructor in Bookkeeping, Commercial Practice, and Shorthand.

ELIZABETH LEE WHITESCARVER, Assistant in Shorthand and Typewriting.

This school was established in 1895, the object being to prepare young men and women for practical business life, and to give to students in other departments of the University an opportunity to study the subjects taught in this school. Students in the College of Arts and Sciences, the College of Law and the other departments of the University may take any of the work outlined in the Commercial School without additional fees.

The instruction in the Commercial Course is given in connection with the work done by professors in the other departments of the University, the curriculum being articulated with the other courses.

The aim of the Shorthand and Typewriting Course is to prepare young men and women for employment as secretaries, amanuenses, assistants in business offices, court reporters, etc. The special advantages include a thorough course in English and an acquaintance with the routine work and technicalities of business.

A certificate will be granted to students who complete the course and pass the required examinations.

Requirements of Admission.

To be admitted as a regular student in this School the applicant must satisfy the instructors that he is proficient in Arithmetic, English, Spelling, Geography, and United States History.

Fees.

Tuition is free to West Virginia students in all departments of the University. To students from other states the tuition in the Commercial School is $5 per quarter (twelve weeks).

The matriculation fee is $5, payable upon entering the University by all students. Unless a student remains out of school for more than three years the matriculation fee is paid but once by each student.

The contingent fee for each quarter is $2, payable at the beginning of the quarter.

A Dispensary fee of fifty cents, payable at the beginning of each quarter, is charged each student, the payment of which secures free medical treatment during the stay of a student at the University.

The total University charge during the first quarter for students from West Virginia in the Commercial School amounts to $7.50, and each succeeding quarter $2.50. State Cadets are furnished with books, stationery, and uniforms free, and are not required to pay any fees, except the Dispensary fee of fifty cents a quarter.

Schedule of Hours

of the

Two-Year Commercial Course.

First Year.

	FALL.	WINTER.	SPRING.
8.00	English Grammar	English Grammar	English Grammar
9.00	Physical Geography	Arithmetic	First Algebra
10.30	General History	United States History	Civil Government
11.30	Penmanship	Bookkeeping	Bookkeeping
1.30	Typewriting	Typewriting	Business Practice

Second Year.

	FALL.	WINTER.	SPRING.
8.00	Hist. & Prin. Com.	Commercial Law	Commercial Law
9.00	Commercial Arith.	Prin. of Economics	Commercial Geography
10.30	Shorthand	Shorthand	Shorthand
11.30	Rhetoric	Rhetoric	Rhetoric
2.00		Court Reporting	Court Reporting

Subjects of Instruction.

Bookkeeping. The latest and most practical method of teaching Bookkeeping is used. The text-book used contains the theory of accounts, and directions to the student in his practical work.

Each student is given individual instruction, except so much class work as is necessary to carry out the scheme of business practice outlined in the text. Each student is placed in the position of bookkeeper, first for a retail business, which is changed from a private business firm to a partnership, and later to a joint stock company. Various other changes are made, until the student has acted as bookkeeper in the following kinds of business: coal, lumber, shipments and consignments, jobbing, manufacturing, instalments, general and special agencies, railroading, and banking.

The student receives his vouchers, etc., in a business manner, as the cash for the original and additional investments, invoices of goods purchased, together with the representative merchandise, remittances for goods sold on account, receipts for remittances made, notes, acceptances, orders, letters, bills of lading, telegrams, etc. These are exact representations of the papers with which the average bookkeeper has to do every day, and their treatment and record involve exactly the same knowledge that the capable bookkeeper possesses.

Text-book, Swartz's "Office Routine and Bookkeeping."

Stenography. The instruction embraces a comprehensive drill on all elementary principles and characters, progressive dictation, introduction of word-signs and phrase-words, phrasing, constant speed practice, the writing and transcribing of business letters upon the typewriter, law testimony, essays, speeches, sermons, legal documents.

Court reporting is taught in connection with the Moot Courts in the Law College of the University, the student being required to make complete reports of the trials and cases in these courts. This gives the student actual practice in the Circuit, Supreme, and District Courts.

Text-book, Dement's "Pitmanic Shorthand."

Typewriting. The Smith Premier machine is used for instruction and practice. The instruction includes a thorough drill in finger exercises, in the mechanism of the various machines, in taking proper care of them, and in adjusting any derangement in the mechanism. The instruction includes also the writing of letters, legal papers, law briefs, specifications, affidavits, testimony, and tabulating. The use of the Neostyle Duplicator, the Mimeograph, and other duplicating apparatus is taught. This subject is taught in connection with shorthand.

Text-book, Gaylord's "Typewriting."

English I. Review of English Grammar, sketch of the growth of the English Language, Etymology, common figures of speech, common errors in the use of English, diction, purity, propriety, precision, punctuation, correspondence, American literature, selections carefully read and critically studied, composition, daily informal essays.

English II. Composition; principles of composition; treatment of different kinds of subjects; narration, description, news, editorials, book reviews, letters, diaries, dialogues, humor; English literature, selected from nineteenth century writers; epochs of English and American literature. Composition is continued throughout the two years. The student is required to study English as long as he remains in school.

History and Principles of Commerce. History of commerce; methods of exchange in ancient times; shipping of the ancients; fairs and markets; results of maritime discoveries; changing of commercial routes; international treaties affecting commerce; scientific and industrial discoveries affecting commerce; trade restriction; consuls, modern commerce; boards of trade; stock and produce exchanges; stock com-

panies; corporations; modern transportation; freight companies; express companies; telegraph and telephone companies; warehouses, duties, insurance; modern methods of preparing and shipping articles of merchandise; circulation of commodities between cities and countries; jobbing and commission business; trade statistics; dependence of manufacturers upon producers of raw material; nomenclature of commerce.

Text-book, Gilbert's "History and Principles of Commerce."

Business Correspondence and Penmanship. A thorough course in business letters, with special reference to their purpose in acknowledging money or goods, ordering merchandise, effecting sales, closing contracts, continuing friendly relations, soliciting patronage, receiving accommodations, securing favors and increasing trade generally, is taught in connection with penmanship.

Commercial Geography. A description of the surface of the earth, with special reference to the production, manufacture, transportation and exchange of articles of trade. A general outline of the countries of the world, soil, climate, agricultural products, forests, manufactories, quarries, mines, centers of industry, foreign relations, ways of communications, social relations and conditions, imports, exports, markets. Special attention is given to the study of the United States, area, climate, position, population, natural resources, raw products, manufactures, waterways, railways, seaports, exports, imports, reasons for rapid growth of Western cities, industrial possibilities, commercial history.

Text-book, Chisholm's "Smaller Commercial Geography."

Civil Government. The history and present workings of our governmental institutions,—municipal, county, state, and national; a careful study of city and state government, the federal constitution and national government, the various federal courts, state courts of the different states, the jury system, elementary principles of procedure in civil and criminal suits, election machinery and ballot systems, naturalization laws, the organization and operation of political parties, and other topics of practical importance to an American citizen.

Economics. The course in economics deals with the production, exchange, distribution and consumption of wealth. Among the topics treated are the development of the modern factory system of production; the part played by the three factors of land, labor, and capital; the exchange of wealth, including a study of the nature and functions of a circulating medium, of the monetary system of the United States, of credit and instruments of credit, of banks and banking systems; rent, interest, wages and profits; domestic and foreign trade relations, government finance and systems of taxation.

THE PREPARATORY SCHOOLS.

The Preparatory School at Morgantown.

STAFF OF INSTRUCTION.

Faculty.

JEROME HALL RAYMOND, Ph.D., President.

THOMAS CONDIT MILLER, A.M., Principal, and Professor of Pedagogy.

ALFRED JARRETT HARE, A.B., Professor of the Latin Language and Literature.

JOHN ALEXANDER LOCKWOOD, M.S., First Lieutenant Fourth Cavalry, U. S. A., Professor of Military Science and Tactics.

DANIEL JENIFER BARTON, Assistant in Mathematics.

Other Instructors Giving Courses in this School.

JOHN ISHAM HARVEY, Ph.D., Professor of Modern Languages.

JAMES WILLIAM HARTIGAN, A.M., M.D., Professor of Biology.

SAMUEL B. BROWN, A.M., Professor of Geology and Mineralogy.

THOMAS EDWARD HODGES, A.M., Professor of Physics.

LEWIS CASS WOOLERY, A.M., Professor of the Greek Language and Literature.

FREDERIC WILLIAM SANDERS, Ph.D., Assistant Professor of European History.

FREDERICK WILSON TRUSCOTT, Ph.D., Assistant Professor of Germanic Languages and Literatures.

RICHARD ELLSWORTH FAST, LL.B., Instructor in American History and Political Science.

WILLIAM EARL RUMSEY, B.S.Agr., Instructor in Botany.

Purpose.

The Preparatory School is maintained to fit young men and young women for the various courses of the University, and it offers excellent opportunties for both mental and moral development under helpful guidance. Those who have not the advantages of an academy or good high school near home may here receive instruction in any of the common branches. Many of the young men in this school are enrolled in the Cadet Corps, and the habits of neatness, accuracy, and of mental and bodily discipline inculcated therein are an invaluable part of a young man's training.

Students who are deficient in only one or two branches of this School may, while finishing this work, take some College studies. But all of the required work of the Preparatory course must be completed before a student is permitted to go on regularly into any University course. Those who do not expect to take a course in the University will be given such studies in the Preparatory School as they are able to pursue profitably.

Admission.

For admission to this School applicants must be at least fifteen years of age, and they should present a certificate of scholarship from their last instructor or the last school with which they were connected. They should be proficient in the ordinary course of study pursued in the public schools of the state, and especially in English grammar and arithmetic. No regular examination is required for admission to the classes of the first year, the student being admitted on trial; if he is not able to pursue the course successfully, he is required to withdraw. Students desiring to take the studies of the second or third Preparatory year will be examined as to their ability to enter the classes of that year, unless they otherwise satisfy the Principal that they are qualified for entrance.

Promotion.

No student will be permitted to enter any higher class or section until he shall have passed in the lower, or shown by special examination that he is able to go on satisfactorily.

Advanced Standing.

The work in this school is so arranged as to enable students to take the course in the shortest time consistent with the attainment of the required proficiency. Students who, upon entering, can take advanced standing, and who are capable of making good progress, may finish the course in one year. When they do not lack much of the course, they

may even finish it in one or two quarters. Students who must take the course from the beginning, and who cannot make rapid progress, will find it necessary to give three years, or even more, to the work of this School. In order that a student may complete the mathematics of this School in two years, he must be well along in arithmetic and possess considerable knowledge of algebra.

Co-education.

Young men and young women are admitted on equal terms.

Preparatory Schedule.

First Year.

	FALL.	WINTER.	SPRING.
8.00	English Grammar	English Grammar	English Grammar
9.00	Physiology	Arithmetic	Beginning Algebra
10.30	General History	U. S. History	Civil Government
11.30	1st Latin or French	1st Latin or French	1st Latin or French

Second Year.

8.00	Physical Geography	Physics	Botany
9.00	1st Greek or 1st German	Greek or German	Greek or German
10.30	2nd Latin or 2nd French	2nd Latin or 2nd French	2nd Latin or 2nd French
11.30	Algebra	Algebra	Algebra

Third Year.

8.00	2nd Greek or 2nd German	2nd Greek or 2nd German	2nd Greek or 2nd German
9.00	3rd Latin or Commercial Arithmetic	3rd Latin or Free Hand Drawing	3rd Latin or Geometric Drawing.
10.30	Plane Geometry	Plane Geometry	Solid Geometry
11.30	Rhetoric	Rhetoric	Rhetoric

Departments of Instruction.

English.

Professor Miller.

First Year.

1. Whitney's "Essentials of Grammar," with careful drill in orthography, punctuation, etc. Fall, 8.00; 10 P.

2. "Higher Lessons in English," Reed and Kellogg, to Lesson 112. Synthesis and analysis. Winter, 8.00; 10 P.

3. Reed and Kellogg, completed; special attention given to English composition. Spring, 8.00; 10 P.

Second Year.

4. Hill's "Foundations of Rhetoric," and Buehler's "Practical Lessons in English." Summer, Fall, 11.30; 10 P.

5. Hill's "Foundations," completed. Critique work and reviews in connection with the course in reading. Winter, 11.30; 10 P.

6. "Introduction to American Literature," Frank V. Irish; and careful reading of the English classics required for admission to college. Spring, 11.30; 10 P.

The books prescribed for reading and for study and practice by the Committee on Entrance Requirements for the year 1898-99 are as follows:

For Reading.

Dryden's "Palamon and Arcite," Pope's "Iliad" (Books I., VI., XXII., and XXIV.), the Sir Roger de Coverly Papers in "The Spectator," Goldsmith's "Vicar of Wakefield," Coleridge's "Ancient Mariner," De Quincey's "Revolt of the Tartars," Cooper's "Last of the Mohicans," Lowell's "Vision of Sir Launfal," Hawthorne's "The House of the Seven Gables."

For Study and Practice.

Shakespeare's "Macbeth," Milton's "Paradise Lost" (Books I. and II.), Burke's "Speech on Conciliation with America," Carlyle's "Essay on Burns."

To complete the Preparatory English satisfactorily in the two years allotted to these courses the student should possess a fair knowledge of the subject when he enters the school. He should be well along in Harvey's Grammar (the text-book in use in the schools of West Virginia), or its equivalent, and be able to apply the ordinary rules of syntax. In the study of elementary Rhetoric more stress is put upon correct forms and usage, both in oral and written work, than upon technical instruction, which belongs properly to the academic courses.

Throughout the second year especial attention is given to the reading courses, students being required to prepare a short review of each book read, and to pass an examination on those selected for study and practice.

Latin.

PROFESSOR HARE.

Allen and Greenough's Grammar, Revised, is used in all courses.

FIRST YEAR.

1. Etymology. Chase and Stuart's "First Year in Latin," pages 9-125. Summer, 11.30; Fall, first section 8.00, second section 11.30; 12 P.

2. Syntax. Chase and Stuart's "First Year in Latin," pages 126-200. Winter, first section 8.00, second section 11.30; 12 P.

3. Oratio Obliqua, and Caesar, Book I., chapters 1-29. Chase and Stuart's "First Year in Latin."
Spring, first section 8.00, second section 11.30; 12 P.

SECOND YEAR.

4. Caesar's "Gallic War," Books I. and II.
Summer, Fall, 10.30; 12 P.

5. Caesar's "Gallic War," Books III. and IV.
Winter, 10.30; 12 P.

6. Cicero's First and Second Orations Against Catiline.
Summer, 8.00; Spring, 10.30; 12 P.

THIRD YEAR.

7. Cicero's Third and Fourth Orations Against Catiline, and the Oration for Archias. Fall, 9.00; 12 P.

8. Virgil's "Aeneid," Books I., II., and III.
Summer, Winter, 9.00; 12 P.

9. Virgil's "Aeneid," Books IV., V., and VI.
Spring, 9.00; 12 P.

Greek.

PROFESSOR WOOLERY AND MR. ——

1. First Greek Book (Chapters I.-XL.). This course is for beginners. Emphasis is laid on correct pronunciation, written accent, memorizing vocabularies, declensions and conjugations, and translating easy sentences from Greek into English and from English into Greek to illustrate the principles of grammar as given in this elementary book. White's "First Greek Book." Summer, Fall, Spring, 9.00; 8 P.

2. First Greek Book (completed). This is a continuation of Course I., and the work is similar in character. Winter, 9.00; 8 P.

3. Xenophon's "Anabasis." Book I. Particular study of connected discourse, its forms, and its syntax. "Xenophon's Anabasis" by Goodwin, and Goodwin's Greek Grammar. Spring, 9.00; 8 P.

Modern Languages.

PROFESSOR HARVEY AND ASSISTANT PROFESSOR TRUSCOTT.

FIRST YEAR,

French. Fall, Winter, and Spring, 11.30.

German. Fall, Winter, and Spring, 9.00.

SECOND YEAR.

French. Fall, Winter, and Spring, 10.30.

German. Fall, Winter, and Spring, 8.00.

Students who take three years of Latin and two years of Greek in the Preparatory School are not required to take any French or German. Those who omit any of the Latin or Greek in the Preparatory course are required to take French or German, and Drawing, equivalent in amount to the Latin and Greek omitted.

History.

ASSISTANT PROFESSOR SANDERS.

1. General History. Mrs. Sheldon-Barnes' text-book will be used as a guide so far as the time devoted to the course will permit of the use of such a handbook. The effort will be made to lead the student to see that the history of the United States began in the eastern hemisphere several thousand years before the birth of Jesus.

Summer, Fall, 10.30; 4 P.

2. United States History. Fiske's "History of the United States" is the text-book used. Winter, 10.30; 4 P.

Civil Government.

MR. FAST.

An elementary course in district, county, municipal, and state government in West Virginia, and in colonial, state, and federal government in the United States. Spring, 10.30; 4 P.

Mathematics.

MR. BARTON.

1. Arithmetic. A review of the subject, with particular attention to the applications of Percentage, the Metric System and Mensuration.

A thorough preparation in Fractions is necessary for admission. Their importance and bearing on the higher mathematics cannot be overestimated. Greenleaf's "Complete Arithmetic." Winter, 9.00; 7 P.

2. Beginning Algebra. From the beginning to Fractions. For admission, a knowledge of Arithmetic as required for the completion of Course 1 is necessary. Milne's "High School Algebra."
Fall, 8.00; Spring, 9.00; 7 P.

3. Algebra. From Fractions to Quadratics. Milne's "High School Algebra." Fall, 11.30; Winter, 8.00; 7 P.

4. Algebra. Milne's "High School Algebra," completed.
Winter, 11.30; Spring, 8.00; 7 P.

5. University Algebra. To Logarithms. Wells' "University Algebra." Spring, 11.30; 7 P.

6. Plane Geometry. Begun. Fall, 10.30; 7 P.

7. Plane Geometry. Completed. Winter, 10.30; 7 P.

8. Solid Geometry. The entire course. Spring, 10.30; 7 P.

9. Commercial Arithmetic. A course for third-year students who are preparing for the Scientific or Engineering courses. Fall, 9.00; 7 P.

Botany.

MR. RUMSEY.

An elementary course for second-year students, designed to awaken an interest in plants,—to lead them to see the things they look at, and to draw proper conclusions from what they see.

The objects which are made the basis of this instruction are taken from the plants with which everyone comes in contact daily, and with which he is, therefore, most familiar.

The general scheme followed is that of "Lessons with Plants," by Bailey. Lessons and demonstrations. Spring, 8.00; Lecture-room A.

Physiology.

PROFESSOR HARTIGAN.

An elementary course for first-year students. Fall, 9.00; 30 U.

Physics.

PROFESSOR HODGES.

An elementary course for second-year students. Carhart and Chute's "Physics." Winter, Spring, 8.00; 11 S.

Physical Geography.

PROFESSOR BROWN.

An elementary course for second-year students. Fall, 8.00; 30 S.

THE PREPARATORY SCHOOL AT MONTGOMERY

JEROME HALL RAYMOND, Ph.D., President.

JOSIAH KEELY, A.B., Principal.

RUBY RAY KNIGHT, B.S., Assistant.

LLOYD LOWNDES FRIEND, A.B., Assistant.

General Information.

The Preparatory School of the West Virginia University at Montgomery in Fayette county was established under the provisions of an act of the Legislature passed February 16, 1895. A suitable building was erected on a beautiful site overlooking the town of Montgomery, the Kanawha river and the Chesapeake and Ohio Railroad, and the School was opened the first Monday in January, 1897.

The control of the School is vested in the Board of Regents of the West Virginia University and the State Superintendent of Free Schools.

The President of the University is ex-officio President of this School without additional compensation.

The course of study and the length of quarters are the same as in the Preparatory School at Morgantown (see pages 168–174).

Tuition is free to all young men and young women of West Virginia.

The citizens of Montgomery donated the spacious and beautiful grounds for the School, and they are enthusiastic workers for its welfare. The last Legislature made liberal appropriations for this School.

It is expected that all who enter the University Preparatory School at Montgomery will make every possible effort to go on from there to the University.

The School is easy of access from the counties of Fayette, Raleigh, Summers, Greenbrier, Nicholas, Clay, Kanawha, Boone, Mercer, Monroe, Wyoming, and the entire southern section of the State.

A dormitory will be erected during the coming summer, which will furnish excellent lodging-rooms and board. It will be under the control of the Principal of the School.

The School building is well furnished, and has a good working library. The work is of the most thorough and careful character.

For information concerning the School application should be made to the Principal.

THE MILITARY DEPARTMENT.

Extract from Militia Law, State of West Virginia, 1897, Sec. 100: "The Corps of Cadets of the West Virginia University shall be held as a part of the West Virginia National Guard, subject to such duty as the Commander-in-chief may order."

State cadets, to the number of 144, are appointed by the Regents of the University, and receive their uniforms, books, stationery, tuition, use of library, use of arms and equipments, and ammunition for target practice free. No charge is made for their admission. They constitute the public guard of the University and of the public property belonging thereto. In order to receive an appointment as state cadet a candidate must be between sixteen and twenty-one years of age, and must furnish evidence of good moral character. Application for a cadet appointment should be made to one of the Regents of the University. (See "Board of Regents," page 9.) State cadets' term of enlistment is two years.

Students of the University who desire military instruction, and who are not state cadets, are allowed to join the corps as volunteer cadets. They receive no uniform from the state.

All cadets are required to wear a neat-appearing gray uniform at drill. Their uniform may be worn with propriety on all occasions.

Officers of the regular army are specially detailed by the President of the United States, one to act as Commandant of Cadets, and one to make an annual inspection of the Corps.

Special Rewards for Military Excellence.

The names of the three most distinguished cadets are published annually in the official U. S. Army Register.

Gold and silver medals are awarded annually to cadets for special excellence.

A prize of twenty-five dollars has been offered by Hon. Richard Randolph McMahon, one of the Regents of the University, to the best drilled cadet.

Cadets who are recommended for promotion after completing examination receive commissions as officers, signed by the Governor of the state, and such commission entitles them to rank with other officers of the National Guard of West Virginia, according to grade and date of commission.

Administration and Instruction.

For the purpose of administration and drill the Corps of Cadets is organized as an infantry battalion. There is also an artillery detach-

ment. Infractions of discipline are referred to a court-martial, consisting of cadet officers, for investigation. Cadets are divided into sections corresponding to their military proficiency and length of service. New cadets are required to enter the fourth (lowest) section, but those who have had previous military instruction may be transferred to a higher section upon passing a satisfactory examination.

The course of military instruction, practical and theoretical, is intended to fit all who graduate to perform efficiently the duties of officers in the National Guard of West Virginia. In addition to this, all cadets are taught that patriotism, punctuality, obedience, attention, alertness, and neatness are at all times expected of them. It is believed that the training a cadet receives fits him to become a good citizen as well as a good soldier. The qualities which go towards making the good officer are no less valuable, when considered in connection with the business man, professional man, or farmer. They are the qualities which ordinarily insure success in every work of life. The excellent physical results which follow systematic military drill are well known and acknowledged by all competent judges.

Course of Instruction.

The instruction of the various sections will be as follows:

Fourth Section.

Practical Instruction: (a) Infantry drills in school of the soldier, squad, company and battalion; extended order and ceremonies. (b) Guard duty as a sentinel. (c) Physical training in the gymnasium.

Theoretical Instruction: (a) Infantry Drill Regulations, paragraphs 1 to 248, and 502 to 601, inclusive. (b) The Manual of Guard Duty except paragraphs 331 to 373, inclusive. (c) The explanation of Cadet Regulations and General Orders, and the care of arms and accoutrements.

Third Section.

Practical Instruction: (a) Infantry drills same as fourth section, except in school of soldiers. (b) Artillery dismounted battery and saber drills. (c) Guard duty as sentinels and non-commissioned officers. (d) Physical training in the gymnasium.

Theoretical Instruction: (a) Infantry Drill Regulations, paragraphs 249 to 367, 602 to 620, and 663 to 769, inclusive. (b) Reed's Artillery Tactics, paragraphs 341 to 460, inclusive.

Second Section.

Practical Instruction: (a) Infantry drills same as third section. (b) Military signaling. (c) Small-arms firing, including the preparation

of ammunition, position, and aiming drills, gallery practice and range firing. (d) Guard duty same as third section.

Theoretical Instruction: (a) Infantry Drill Regulations, paragraphs 368 to 499, and 621 to 662, inclusive. (b) Military signaling. (c) Small-arms Firing Regulations. (d) United States Army Regulations.

First Section.

Practical Instruction: (a) Infantry duties of grade attained. (b) Guard duty of grade attained. (c) Courts-martial. (d) Fencing.

Theoretical Instruction: (a) Minor tactics, including advance and rear guards, outposts, marches, field fortifications, riot duty, etc. (b) Military Law.

Military Graduates and Distinguished Cadets, Reported at Commencement, 1897.

(Those marked * are Distinguished Cadets.)

Cadet Lieutenant Harry A. Eaton.*
Cadet Lieutenant Earl A. Brooks.*
Cadet Lieutenant Desmoines Utt.*
Cadet Lieutenant Wade C. Kilmer.
Cadet Ordnance Sergeant Benjamin F. Scott.
Cadet Sergeant-Major William D. R. Annan.

Medals Awarded at Commencement, 1897.

Gold medal for drill and discipline to Cadet Sergeant Paul McCoy, Company "B."

Silver medal for highest score at target practice to Cadet First Sergeant B. F. Laughlin, Company "B."

Silver medal for second highest score at target practice to Cadet Sergeant E. F. Goodwin, Company "B."

Hirschman medal for cadet in fourth section for attendance, discipline, and standing to Cadet Corporal Roy Reger, Company "B."

Roster of the Corps of Cadets, May 1, 1898.

First Lieutenant Jno. A. Lockwood, Fourth Cavalry, U. S. A., Commandant.

Cadet Major Chas. E. McCoy, Commanding Infantry Battalion.

Staff.

Major James W. Hartigan, Surgeon.
Cadet First Lieutenant George E. Gramm, Adjutant.
Cadet First Lieutenant William D. R. Annan, Quartermaster.
Cadet First Lieutenant Benjamin F. Laughlin, Artillery Officer.
Cadet Second Lieutenant William L. Robe, Signal Officer.

Non-commissioned Staff.

Cadet P. E. Green, Sergeant-Major.
Cadet E. M. Dille, Ordnance Sergeant.
Cadet H. A. St. Clair, Principal Musician.
Cadet W. L. Lowe, Quartermaster Sergeant.

Company "A."

Cadet Captain Utt, Desmoines, Commanding Company.
Cadet First Lieutenant Kilmer, Wade C.
Cadet Second Lieutenant Waddell, Charles W.

Musicians.

Cadet Miller, D. E.
Cadet Englehart, W. M.

Sergeants.

Cadet Moreland, J. R. (First Sergeant).
Cadet Ireland, H. H.
Cadet Quimby, C. H.
Cadet Frankenberger, Hugo.

Corporals.

Cadet Roller, B. R.
Cadet Willis, J. A.
Cadet Steele, H. G.
Cadet Poe, C.

Privates.

Cadet Alexander, W. F.
Cadet Bailey, B.
Cadet Bowman, T. B.
Cadet Beltzhoover, G. M., Jr.
Cadet Capito, H.
Cadet Casey, T. J.
Cadet Chancellor, C.
Cadet Cummings, J. W.
Cadet Davis, W. C.
Cadet Dobbs, L. R.
Cadet Guey, Wong Hong (Volunteer).
Cadet Heermans, C. R.
Cadet Hess, C. F.
Cadet Hutchinson, F. D.
Cadet Johnson, J. W.
Cadet Kessell, J. E.
Cadet Largent, R. J.
Cadet Lazier, J. P.
Cadet Lewis, J. C.
Cadet Lucas, A. M.
Cadet Martin, W. G.
Cadet Meredith, J. A.
Cadet Miller, G. B.
Cadet Moore, H. C.

Privates—Continued.

Cadet Moore, S. G.
Cadet Mouser, C. C.
Cadet McClung, J.
Cadet McIntosh, C. L.
Cadet McCutcheon, A. B.
Cadet Pratt, J. I.
Cadet Rogers, R.
Cadet Shaffer, P. A.
Cadet Shaw, W. R.
Cadet Shay, J. W.
Cadet Smith, E. H.
Cadet Sutton, O. O.
Cadet Thompson, D. C.
Cadet Thompson, L. C.
Cadet Thornbury, J. W.
Cadet White, R.

Company "B."

Cadet Captain Reger, Roy, Commanding Company.
Cadet First Lieutenant Scott, Buckner F.
Cadet Second Lieutenant Carskadon, Edward B.

Musicians.

Cadet Tabler, B. L.
Cadet Bayles, G. H.

Cadet Sergeants.

Cadet Goodwin, E. F. (First Sergeant).
Cadet Lively, H. S.
Cadet Jefferds, J. C.
Cadet Hennen, R. V.
Cadet Gibson, W. H.

Corporals.

Cadet McDonald, P. N.
Cadet Roller, R. D.
Cadet Gore, H. M.
Cadet Butler, S. G.

Privates.

Cadet Alexander, C.
Cadet Bush, I. B.
Cadet Buskirk, J. C.
Cadet Capehart, C. A.
Cadet Casey, C. J.
Cadet Cole, E. L.
Cadet Corbin, F. P.
Cadet Davis, T. J.
Cadet Dodson, R.
Cadet Freeman, J. H.
Cadet Hawse, A. L.
Cadet Honaker, G.
Cadet Hoover, J. F.
Cadet Horner, B. F.
Cadet Killingsworth, R. H
Cadet Kinkaid, R. H.
Cadet Lang, T. S.
Cadet Laughry, W. H.
Cadet Lea, E. D.
Cadet Mahone, L. D.
Cadet Mayer, J. H.
Cadet McGlumphy, W. A.
Cadet McGlumphy, W. G.
Cadet Meyers, H. M.
Cadet Morrison, H. C.
Cadet Mortin, J. J.
Cadet Naret, J. Q.
Cadet Parsons, F. F.
Cadet Rogers, H. F.
Cadet Rose, H. H.
Cadet Rice, P. D.
Cadet Scherr, A. A.
Cadet Sutton, F. O.
Cadet Wagner, C. B.
Cadet Watson, H. E.
Cadet Wiles, G. R. C.

Cadets Unassigned.

(On Furlough.)

Cadet Captain Moore, B. G.
Cadet Sergeants Holy, G. H. F., and Scott, J. B.
Cadet Corporal Bayles, W. H.
Cadet Private Jones, E.
Cadet Private Keener, H. H.
Cadet Private Klein, M. B. (Volunteer Cadet).
Cadet Private Loar, R. A.
Cadet Private Shaw, J. C.
Cadet Private Varner, W. W.
Cadet Private Williamson, H. R.

Summary.

Cadet Commissioned Officers	12
Cadet Non-Commissioned Officers	25
Cadet Musicians	4
Cadet Privates	84
Whole number of Cadets on rolls May 1, 1898	126
Volunteer Cadets	2
State Cadets	128

DEPARTMENT OF PHYSICAL TRAINING.

JAMES WILLIAM HARTIGAN, A.M., M.D., Director of the Gymnasium and Instructor in Physical Training.

The Gymnasium.

The Gymnasium occupies the entire first floor of Commencement Hall. It is large and well ventilated, has good light, is properly heated in winter, and is equipped with the most modern and approved apparatus, and with plunge and shower baths. It is open for the use of students every day except Sunday. Certain hours are reserved for lady students. Separate classes in Gymnastics are formed for men and women, and in addition to these classes private work is arranged for individual students. All students are encouraged to utilize the Gymnasium in every possible way.

Course in Physical Training.

The regular course in Physical Training occupies two years, and is required of all young men in the Preparatory School, and of all young men in the College of Arts and Sciences who have not had the course in the Preparatory School. Students who are members of the Cadet Corps are excused from the course in Physical Training, and other students may be excused by their class officers for sufficient reasons.

The instruction is by lectures and class exercises. The time devoted to it is three hours per week throughout the two years. The class for men meets Mondays, Wednesdays, and Fridays at 5 P. M. For women students the work in Physical Training is elective. The class for women meets Tuesdays and Thursdays at 5 P. M., and Fridays at 4 P. M.

First Year.

The fall quarter is given to light gymnastics. The students are drilled to music in the simple motions of stepping, charging, lunging, hopping, running, etc. The winter is given to other free gymnastic movements, including the various head, neck, eye, chest, waist and extremity exercises, and basket ball work. During the spring quarter the time is given to instruction in calisthenics, figure marching, running and light dumb-bell exercises.

Second Year.

During the fall quarter the light dumb-bell exercises are continued with exercises in vaulting, jumping, and club swinging. The winter

quarter is devoted to club swinging, chest-machine work, ladder and bar-bell exercises, and the spring quarter to horizontal and parallel bar work, fencing, boxing and ring exercises.

Credit for Work in Physical Training.

Students who take the work in Physical Training, whether as required or elective work, will receive for each quarter's work in Physical Training credit for one-third of a course toward any degree in the College of Arts and Sciences, or in the College of Agriculture.

INSTRUCTION BY CORRESPONDENCE.

The West Virginia University is now giving instruction at a distance from the University by correspondence.

It should be clearly understood that instruction by correspondence is by no means regarded as the equivalent of resident study. Experience has shown, however, that earnest students may do good work at a distance from the University when guided by competent instruction by correspondence. There are in every locality teachers, ministers, and men and women of various vocations, who are carrying on the study of certain subjects alone, and who would be glad to avail themselves of the guidance of a University instructor. There are others who would take up and prosecute some line of study if they could have competent guidance, but who do not feel able to carry on any study without assistance. Some are looking forward to a college course, and would like to prepare themselves for admission; others would like to do a part of the college work in absence, thereby shortening the time of residence required for a degree. For these various classes of persons and all others who desire to receive guidance in some line of study by correspondence, whether with a view to receiving University credit or not, the West Virginia University offers instruction by correspondence according to the following plan:

Method of Instruction by Correspondence.

The courses offered by correspondence are arranged to cover the same ground as the corresponding courses in the University proper. The University year is divided into four quarters. The average requirement for students doing full work at the University is fifteen hours of recitation weekly, i. e., the equivalent of three full courses each quarter. A full course consists of five recitations a week for one quarter (twelve weeks). Most courses in the University are full courses, though some are half-courses, and a very few are one-third courses. All courses offered by correspondence are full courses, each one being equivalent to a study in the University proper running through one quarter, the class meeting five times a week.

Instruction by correspondence is carried on by a series of printed instruction and question sheets. In the case of a full course, the entire course consists of twenty of these instruction sheets. Each sheet assigns the student certain work, gives suggestions and explanations and a series of questions, the answers to which the student is to write out after having performed the work assigned. The answers to these questions the student is to mail to the University with any questions or

difficulties which have arisen in his mind. As soon as possible after this recitation paper has been received at the University it will be returned with errors corrected and whatever suggestions the instructor may think necessary.

Only a few of the courses offered at the University are as yet offered by correspondence. Below is given a list of courses which may be taken by correspondence; of these courses not more than two may be taken by one student at the same time. The student must complete any course chosen within a year from the time he begins it; he may complete it as soon after beginning it as he is able.

Students may begin any course at any time.

If a period of sixty days elapses without any report from a correspondence student he will be deemed to have dropped the course, and he will forfeit his right to further instruction.

University Credit for Work Done by Correspondence.

1. When a student has completed any course of study by correspondence satisfactorily to the instructor, he will be given a certificate for the work done.

2. If he desires this work to be credited on the books of the University towards a degree, he must pass a special examination at the University on the work done by correspondence for which he wishes credit. In rare and exceptional cases this special examination may be conducted at the student's home by some one from the University or authorized by the University.

3. For the Bachelor's degree not more than one-half the required work may be performed by correspondence.

4. For the Master's degree not more than one-third of the required work may be performed by correspondence.

The University grants no degrees for work done entirely by correspondence or in absence.

For the degrees of B.A., B.S., Ph.B., and B.L. at least one year of resident study is required.

For the degrees of M.A., M.S., Ph.M., and M.L. at least two quarters of resident study is required, after receiving the Bachelor's degree.

Expenses.

The instruction fees are as follows:

For a full course..... $5.00

These fees include the payment for printed lesson sheets, but the student is required to enclose postage with each recitation paper for its return when corrected by the instructor.

All fees are payable in advance.

Students are not required to pass any examination before undertaking any of these courses by correspondence; they are simply required to fill out a blank which will be sent on application. After examining this blank when it has been filled out and returned to the University, the instructor will decide whether the student is able to carry the course selected.

Courses of Instruction by Correspondence.

All courses are full courses.

Philosophy.

PROFESSOR REYNOLDS.

1. Comparative Religion.
2. Ethics.
3. History of Philosophy.
4. Psychology.

Pedagogy.

PROFESSOR MILLER.

1. History of Education.
2. Methods and Principles of Instruction.
3. School Management and School Supervision.
4. Educational Psychology.

Sociology.

PRESIDENT RAYMOND.

1. Anthropology.
2. Ethnology.
3. Elements of Sociology.
4. Social Philosophy.

Economics.

PRESIDENT RAYMOND.

1. Historical Introduction to Economics.
2. The Principles of Economics.
3. History of Economic Thought.

Political Science.

MR. FAST.

1. Local Government.
2. Theory of Political Science.

European History.

ASSISTANT PROFESSOR SANDERS.

1. Oriental and Greek History.
2. Rome and the Roman Empire.
3. Mediæval History.
4. English History to the Accession of the Tudors.
5. English History from the Accession of the Tudors to the Present Time.
6. Modern History.
7. The History of Our Own Times—the Last Century and a Half.

American History.

MR. FAST.

1. American History to the Revolution.
2. History of the United States.

Greek.

PROFESSOR WOOLERY.

1. First Greek Book (White), Lessons I.-XL.
2. First Greek Book, Completed.
3. Xenophon's Anabasis (Goodwin), Book I.
4. Xenophon's Anabasis, Books II.-III., and Prose Composition (Jones), Lessons 1-20.
5. Lycias' Orations (Stevens), and Prose Composition, Completed.
6. Homer's Iliad and Homeric Verse (Seymore), Books I., II., and III. Myths of Greece and Rome (Guerber).
7. Plato's Apology (Dyer). A Study of Greek Philosophy (Mitchell).
8. Demosthenes' Philippics I. and II. Oratory by Cicero.
9. Sophocles' Antigone. Ancient Greek Literature (Murray).
10. I. and II. Corinthians (Westcott and Hort).
11. Acts of the Apostles, Chapters I.-XIV.
12. Acts of the Apostles, Chapters XV.-XXVIII.

Note. The English works assigned on Mythology, Philosophy, Oratory, and Literature are to be read only. Collateral reading will be assigned also in connection with a critical study of the New Testament Greek.

Latin.

PROFESSOR DOUTHAT.

1. Latin for Beginners; first quarter.
2. Latin for Beginners; second quarter.

3. Latin for Beginners; third quarter.
4. Cæsar: Gallic War—Selections.
5. Cicero: Selected Orations.
6. Virgil, Æneid—Selections.
7. Livy—Selections.
8. Horace—Selections.

Romance Languages and Literatures.

1. French for Beginners.
2. Intermediate French.
3. Advanced French.
4. Italian.
5. Spanish.

German.

ASSISTANT PROFESSOR TRUSCOTT.

1. German for Beginners.
2. Intermediate Course in German.

Rhetoric.

MR. WHYTE.

1. Rhetoric for Beginners.
2. Intermediate Rhetoric.
3. Advanced Rhetoric.

English Literature.

PROFESSOR ARMSTRONG.

1. Introduction to English Literature.
2. General Survey of English Literature: First Period.
3. General Survey of English Literature: Second Period.
4. The American Poets.
5. The English Essayists: First Period.
6. The English Essayists: Second Period.
7. The English Novelists.
8. Shakespeare.
9. Browning.

Mathematics.

PROFESSOR STEWART.

1. Teachers' Course in Algebra.
2. Plane Geometry.
3. Plane Trigonometry.

Physics.

PROFESSOR HODGES.

1. Elementary Physics.
2. Elementary Laboratory Course for Teachers in secondary schools, and for others having access to simple apparatus.

Chemistry.

PROFESSOR WHITEHILL.

1. Experimental course designed as an introduction to the study of Chemistry.

Geology.

PROFESSOR BROWN.

1. Economic Geology.

Physiology.

DR. HARTIGAN.

1. Physiology.

Botany.

DR. HARTIGAN.

1. Field Botany.

Mechanical Engineering.

PROFESSOR ALDRICH, MR. JONES, MR. WHYTE AND MR. WEST.

GROUP I. Mechanical Construction,—principles, appliances, methods and economics of workshop production:

1. Pattern-making, moulding and casting.
2. Forging and toolsmithing.
3. Machine shop practice.
4. Superintendence and Management.
   (Development, organization, supervision and economics of modern manufacturing work.)

GROUP II. Engineering Design,—principles, methods and economics.

1. Iron and steel in mechanical construction.
2. Mechanism and designing mechanical movements.
3. Mechanical Drawing:
   (a) Elementary and general course.
   (b) Machine and Constructive Drawing.

4. Machine Design:
   (a) Elementary and general course.
   (b) Engineering and Constructive Design.

GROUP III. Steam Engineering and Motive Power Machinery.

1. Steam Engineering:
   (a) Elementary and general course.
   (Engines, boilers, pumps, injectors, piping.)
   (b) Indicator Practice and Valve Gears and Setting.
2. Compressed Air Machinery and Transmission.
3. Refrigerating Machinery and Ice Plants.
4. Gas Engines, producers, storage and distribution.
5. Heating and Ventilation of Buildings.
6. Locomotive Engineering.

Note. Students in the various lines of mechanical engineering work are recommended to make a combination of two or more of the above special courses, as may be best adapted to meet their particular requirements.

Electrical Engineering.

PROFESSORS HODGES AND ALDRICH, AND MR. JONES.

1. Electricity and Magnetism:
   (a) Elementary and general course.
   (b) Regular Course for Engineers.
2. Electrodynamic Machinery:
   (a) Direct Current Dynamos and Motors.
   (b) Alternating Current Dynamos, Motors and Transformers.
3. Electrical Wiring and Distribution for Direct and Alternating Currents.
4. Electric Street Railways, Systems and Working.
5. Electric Coal Mining; cutting and haulage, by electricity.
6. Electric Lighting Systems,—arc and incandescent.
7. Telephone systems.
8. Electric Power Transmission, by direct and alternating currents.
9. Electric Light Plants; Central Station working.
   (Development, organization, management and economics of electric power production.)

Note. Students in the various lines of electrical engineering work are recommended to make a combination of two or more of the above courses, as may be best adapted to meet their particular requirements.

Civil Engineering.

PROFESSOR JOHNSTON.

1. Beginners' Course in Land Surveying.
2. Coal Mining in West Virginia.
3. Elementary Mechanical Drawing.
4. Advanced Mechanical Drawing.

Mechanics and Applied Mathematics.

PROFESSOR EMORY.

1. Elementary Mechanics.
2. Theoretical Mechanics, Course 1.
3. Theoretical Mechanics, Course 2.
4. Applied Mechanics.
5. Theoretical Hydraulics.
6. Power, Course 1.
7. Power, Course 2.
8. Power, Course 3.
9. Engineering Calculus.

Agriculture.

PROFESSOR ATKESON.

1. The Elements of Agriculture.
2. Domestic Animals.
3. Science of Agriculture.
4. Rural Economics.

Note. An Agricultural Course in Home Reading will be given free, for which no credit will be given on a University course, but a certificate will be given on its completion, for which a small fee will be charged to pay cost of printing. A special circular regarding this Home Reading Course may be had upon application. (See page 136.)

Horticulture.

PROFESSOR CORBETT.

1. The Elements of Horticulture.
2. Science of Horticulture.
3. Forestry.

Entomology.

DR. HOPKINS.

1. Entomology for Beginners.

Economic Botany.

PROFESSOR RUMSEY.

1. Economic Botany.

Commercial.

MR. WILLIS.

1. Stenography.
2. Bookkeeping.

Law.

DEAN JOHNSON AND PROFESSOR BROOKE.

1. Blackstone. Professor Brooke.
2. Criminal Law. Professor Johnson.
3. Criminal Procedure. Professor Johnson.
4. Corporations. Professor Johnson.
5. Constitutional Law. Professor Johnson.

All correspondence regarding instruction by correspondence should be addressed to

JEROME H. RAYMOND,
President West Virginia University,
Morgantown, W. Va.

SUMMER QUARTER, 1898.

Staff of Instruction.

JEROME HALL RAYMOND, Ph. D., President of the University, and Professor of Economics and Sociology.

ELISHA BENJAMIN ANDREWS, D.D., LL.D., President of Brown University, Providence, R. I., Lecturer in Sociology.

NATHANIEL BUTLER, D.D., President of Colby University, Waterville, Me., Lecturer in English Literature.

POWELL BENTON REYNOLDS, D.D., Chaplain of the University, and Professor of Philosophy.

OKEY JOHNSON, A.M., LL.B., Dean of the College of Law, and Professor of Constitutional and International Law.

CHARLES ALFRED ELLENBERGER, Director of the School of Music, and Professor of Music.

ST. GEORGE TUCKER BROOKE, LL.D., Professor of Common and Statute Law.

ALEXANDER REID WHITEHILL, Ph.D., Professor of Chemistry.

JAMES WILLIAM HARTIGAN, M.D., Sc.D., Professor of Biology.

JAMES SCOTT STEWART, M.S., Professor of Mathematics.

JOHN LINDSAY JOHNSTON, C.E., Professor of Civil and Mining Engineering.

SAMUEL B. BROWN, A.M., Professor of Geology and Mineralogy.

THOMAS CONDIT MILLER, A.M., Professor of Pedagogy, and Principal of the Preparatory School.

WILLIAM SLEEPER ALDRICH, M.E., Professor of Mechanical Engineering.

ROBERT WILLIAM DOUTHAT, Ph.D., Professor of the Latin Language and Literature.

THOMAS EDWARD HODGES, A.M., Professor of Physics.

LEWIS CASS WOOLERY, A.M., Professor of the Greek Language and Literature.

FREDERICK LINCOLN EMORY, B.S., M.M.E., Professor of Mechanics and Applied Mathematics.

BERT HOLMES HITE, M.S., Professor of Agricultural Chemistry.

ALFRED JARRETT HARE, A.B., Professor of the Latin Language and Literature.

LESTER F. WARD, LL.D., Smithsonian Institution, Washington, D. C., Lecturer in Sociology.

BURKE AARON HINSDALE, Ph.D., LL.D., Professor of the Science and Art of Teaching, University of Michigan, Ann Arbor, Mich., Lecturer in Pedagogy.

ALBERT E. WINSHIP, Ph.D., Editor "Journal of Education," Boston, Mass., Lecturer in Pedagogy.

ROBERT IRVING FULTON, A.M., Professor of Elocution and Oratory, Ohio Wesleyan University, Delaware, Ohio, and Ohio State University, Columbus, Ohio, Lecturer in Elocution and Oratory.

CHARLES EDMUND NEIL, A.M., Professor of Elocution and Oratory, Denison University, Granville, Ohio, and Assistant Professor of Elocution and Oratory, Ohio Wesleyan University, Delaware, Ohio, Lecturer in Elocution and Oratory.

JAMES HENRY HAMILTON, LL.B., Ph.D., Professor of Political Economy, Syracuse University, Syracuse, N. Y., Lecturer in Economics.

CHARLES ZUEBLIN, Ph.B., B.D., Associate Professor of Sociology, University of Chicago, Chicago, Ill., Lecturer in Sociology.

JANE ADDAMS, Head Resident, Hull House, Chicago, Ill., Lecturer in Sociology.

FREDERIC WILLIAM SANDERS, Ph.D., Assistant Professor of European History.

FREDERICK WILSON TRUSCOTT, Ph.D., Assistant Professor of Germanic Languages and Literatures.

RICHARD CLYDE FORD, Ph.M., Assistant Professor of Modern Languages, Albion College, Albion, Mich., Lecturer in German Literature.

DENNIS MARTIN WILLIS, Instructor in Book-keeping and Commercial Practice, and Principal of the Commercial School.

RUSSELL LOVE MORRIS, B.S.C.E., Instructor in Civil and Mining Engineering.

CLEMENT ROSS JONES, M.E., Instructor in Mechanical Engineering.

RICHARD ELLSWORTH FAST, LL.B., Instructor in American History and Political Science.

WILLIAM EARL RUMSEY, B.S.Agr., Instructor in Botany.

EVA EMMA HUBBARD, Instructor in Drawing and Painting.

ELIZA JANE SKINNER, Library Director, and Instructor in Library Science.

RUSSELL McMURPHY, Instructor on the Piano.

FRANK WILLIAM KEENE, Instructor on Stringed Instruments.

ERNEST BRYANT HOAG, A.B., B.S., Instructor in Biology, Throop Polytechnic Institute, Pasadena, Cal., Lecturer in Biology.

KENNETH McKENZIE, Ph.D., Instructor in Modern Languages, Union College, Schenectady, N. Y., Lecturer in Romance Languages and Literatures.

ERNEST IRVING ANTRIM, Ph.D., Lecturer in English Literature.

WILLIAM ALEXANDER READ, Ph.D., Lecturer in English Literature.

RUFUS WEST, Assistant in Mechanical Engineering.

GRACE MARTIN, B.M., Assistant on the Piano.

SUMMER QUARTER, 1898.

Announcement.

The summer quarter will begin July 1, 1898, and continue twelve weeks. It will be divided into two terms of six weeks each. The first term will extend from July 1 to August 11, inclusive. The second term will extend from August 12 to September 22, inclusive. Students may enter the University for the entire quarter or for the first or second term only; or for any portion of the quarter. The summer quarter is not a "summer school". It is an integral part of the University year. All departments of the University will be in full operation, and in addition to this regular work of the University, a number of attractive special courses will be offered by eminent specialists from other institutions. Some of the courses of study that will be offered will extend throughout the entire quarter, and others will continue through the first or the second term only. Students who enter for one term may take courses which extend through that term only, or may take half of any courses which extend throughout the entire quarter. Both sexes are admitted to all departments on equal terms. A large number of popular lectures, concerts, and recitals will be given at the University during the summer quarter, all of them open without charge to students.

The first Quarterly Convocation will be held Friday, July 1, at 10 A. M., in Commencement Hall.

Library and Reading Room.

The Library and Reading Room occupy a part of the second floor of the Preparatory building. Windows on three sides of the room furnish good light as well as afford a fine view of the picturesque Monongahela.

The room is open without break from 8 A. M. to 10 P. M. every day except Sunday, and it is earnestly hoped that the students who come for the summer quarter will avail themselves of the opportunity to spend as much time as possible in this department.

During the past year, the library has been classified by the Dewey decimal system of classification. New cases have been provided where the books are shelved according to the classification. A dictionary card catalogue, which is well under way, will greatly increase the usefulness of the library. Students are allowed free access to the library shelves; and it is the effort of those in charge to render every service possible to aid students in making profitable use of the books.

The reading room is well supplied with the current periodicals and newspapers,—both technical and general,—which are free of access to all who wish to make use of them.

Matriculation.

Students are requested to matriculate at the president's office, room 10, Science Hall, a day or two before the opening of the summer quarter, in order that classes may begin promptly on July 1. All students who take work at the University in the summer quarter, whether they have been in attendance previously or not, will register at the president's office when they enter the University for the summer quarter.

Admission and Credit.

Students are admitted in the summer on the same conditions on which they are admitted during any other quarter of the year. A pamphlet giving the requirements for admission to all the courses leading to degrees will be mailed upon application. Teachers and others who desire to attend the University for the summer quarter without becoming candidates for degrees, will be admitted without examination to any classes they are prepared to enter. Work done in the summer quarter will count toward a degree under the same conditions as work done during any other quarter of the year. Students who enter the University for the summer quarter without being candidates for degrees will receive credit for the work they do, and if they afterward comply with the entrance requirements and become candidates for degrees, this work will count toward the degrees.

University Fees.

Except in the School of Music, and the Departments of Elocution, and Drawing and Painting, tuition is free to West Virginia students. To students from other states the tuition is:

In the Preparatory School, $5.00 per quarter.

In the Commercial School, $5.00 per quarter.

In the College of Law, $8.00 per quarter.

In the other colleges, $12.50 per quarter.

The matriculation fee is $5.00, payable upon entering the University by all students. Unless the student remains out of the University more than three years, the matriculation fee is paid but once.

The contingent fee is $2.00 per quarter.

The dispensary fee is 50 cents per quarter, and entitles the student to free medical attendance while at the University.

Students taking laboratory courses pay the following fees, to cover the cost of material used: General Chemistry, $2.00 per quarter; Analytical Chemistry, $6.00 per quarter; Anatomy, $5.00 per quarter.

Board and Lodging.

It is possible to secure board and lodging in Morgantown for $3.00 per week. Most students, however, pay from $3.25 to $4.00 per week.

COURSES OF INSTRUCTION.

For all baccalaureate degrees, except the degree of Bachelor of Agriculture, at least forty-two *full courses* are required. A *full course* means a course of five class exercises a week, for one quarter, or their equivalent in laboratory or other practical work. In the following announcements each course will be understood to be a full course, the class meeting five times a week, Mondays to Fridays inclusive, throughout the entire summer quarter, unless otherwise noted. The hour and class room are named at the end of the announcement of each course. The abbreviations are: U., University Hall; S., Science Hall; M., Mechanical Hall; A., Agricultural Experiment Station; P., Preparatory Hall; C., Commencement Hall.

Philosophy.

Professor Reynolds.

1. PSYCHOLOGY. An introductory course, devoted to the study of: (1) the mental processes, the feelings, and the processes of deliberation; (2) an outline of the structure and functions of the brain and nervous system as related to the states of consciousness, and mental processes; (3) mental culture—the principles and methods of mental training, and the application of Psychology to education and pedagogy. Ladd's "Outlines of Descriptive Psychology," with lectures and notes by the instructor. 10.30; 10 U.

2. LOGIC AND THE PRINCIPLES OF SCIENCE. A review of the processes of conception, judgment, and reasoning; a discussion of the nature and laws of inference, induction, and the subsidiary processes, such as observation, experiment, classification, hypothesis; causes and methods of induction; imperfect inductions and fallacies; the elements of deduction and formal logic; a discussion of propositions and syllogisms; fallacies and the means of detecting them. Fowler's "Logic," with references to Mill, Jevons, and Bain, and numerous original exercises. 8.00; 10 U.

3. ELEMENTS OF ETHICS. A review of the mental processes that control conduct; the fundamentals of morality, such as the moral faculty, the ground of obligation, the moral standard, the moral law, moral sanction; moral culture; practical morality, or duties, personal and social, and the ground of them. Mackenzie's "Manual of Ethics," with lectures and outlines by the instructor. 11.30; 10 U.

4. COMPARATIVE RELIGION. A course of ten synoptic lectures, outlining the history of the leading religions of the world; a comparison of the beliefs, forms and practices of the different religions; the relation of religious beliefs and forms to morals, govern-

ment, science, social development, and civilization generally. Menzie's "History of Religion." One-third course.

8.00 P. M., Thursdays; C.

Pedagogy.

While the courses in Pedagogy offered for the summer quarter are primarily for teachers and those expecting to become teachers, they will prove helpful to all students, and especially to those who, in the home or in society, are interested in the proper training of youth. No problem before the people to-day is of more importance than this character-building through the agency of the public school. In addition to this, Pedagogy is now recognized as possessing a culture value along with its practical and disciplinary features. The student who gives this subject the same intelligent study that is accorded to other branches will be surprised and delighted with the broad field that opens before him.

These courses will be supplemented by lectures and collateral reading, the pedagogical works and educational magazines in the University library furnishing abundant material for wide investigation. A regular course of reading is outlined, and students are expected to prepare papers and critiques on the various subjects presented.

Professor Miller.

1. HISTORY OF PEDAGOGY. (a) Education in West Virginia, embracing a discussion of the Irreducible School Fund, the Independent District, the County as a Unit of Taxation, and the Central High School. (b) Education in the United States. Morgan and Cork's "History of Education in West Virginia;" Boone's "History of Education in the United States." 8.00; 10 P.

2. EDUCATIONAL PSYCHOLOGY. The relation between Pedagogy and Psychology; heredity and environment; physical, intellectual, and moral education; character-building. White's "Elements of Pedagogy;" McClellan's "Applied Psychology." 9.00; 10 P.

3. SCHOOL ORGANIZATION AND MANAGEMENT. Courses of study; the grading and classification of schools; methods in secondary schools; supervision in city, town, and district schools; buildings and appliances; school law. "State Manual;" Payne's "Supervision;" White's "School Management." 10.30; 10 P.

4. METHODS OF INSTRUCTION. The art and science of teaching; school room practice; general method; special method. Payne's "Contributions to the Science of Education;" Putnam's "Manual of Pedagogics." Half course. Mondays, Wednesdays, Fridays. 2.00; 10 P.

5. SEMINARY IN PEDAGOGY. Topics embracing various features of pedagogical work assigned for discussion; current educa-

tional literature; and original investigation. Half course. Tuesdays, Thursdays. 2.00; 10 P.

Dr. Winship.

6. METHODS AND PRINCIPLES IN MODERN EDUCATION. A series of about fifteen lectures, two a day, July 13 to 20. One-third course.

Professor Hinsdale.

7. EDUCATIONAL TOPICS. A series of six lectures, July 14 and 15, as follows:

(1) The Teacher's Problem.
(2) The Teacher's Possibilities and Limitations.
(3) President Garfield as a Student and Teacher.
(4) Teaching-Material.
(5) Feeling as an Element in Education.
(6) Motor Forces in Our Educational History.

Professor Ford.

8. THE EDUCATIONAL SYSTEM OF GERMANY. A series of six lectures on the schools and school work of Germany, the aim being to give teachers and students of Pedagogy and Education an insight into the educational methods of the most scholarly nation in the world. First term. Mondays. 3.00; C.

Professor Hodges.

9. PLAIN TALKS TO PRACTICAL TEACHERS. A series of six lectures:

(1) The Teacher's Preparation.
(2) The Art of Teaching.
(3) The Recitation.
(4) Language Training.
(5) School Discipline.
(6) Moral Training.

First term. Saturdays. 3.00; C.

Courses 7, 8, and 9, together, will count as a one-third course.

Library Science.

Miss Skinner.

1. THE USE OF BOOKS. A course designed to give an outline knowledge of the management, use, and methods of the library. It will consist of lectures on reference books in groups,—indexes, dictionaries, encyclopedias, atlases, hand books of history and of general information, quotations, statistics, etc. Students will be directed in the handling and examination of the books in the University library. Lectures, assigned work, and reports. Half course. Tuesdays, Fridays. 3.00; 12 P.

Sociology.

President Raymond.

1. A HISTORICAL SURVEY OF SOCIOLOGICAL THOUGHT. This course traces the gradual development of sociological thought from antiquity through the Hebrew, Greek, Roman, and mediæval writers down to our own times. The sociological teachings of a few classical writers, as Plato, Aristotle, and Cicero, are considered as types of ancient sociological thought. Mediæval thought is briefly discussed, taking writers like St. Augustine and St. Thomas Aquinas as types, with a view to explaining the slow growth of Sociology. The later developments of sociological thought are treated at greater length, the larger part of the course being devoted to the teachings of the most important modern sociologists. Lectures and assigned readings. 8.00; 10 S.

2. A GROUP OF SOCIAL PHILOSOPHERS. A series of six public lectures, as follows:

(1) John Stuart Mill and Utilitarianism.
(2) Charles Kingsley and Christian Socialism.
(3) Thomas Carlyle and Paternalism.
(4) John Ruskin and Æsthetics.
(5) William Morris and Idealism.
(6) Arnold Toynbee and Humanitarianism.

First term. Mondays. 8.00 P. M.; C.

Professor Ward.

3. PURE AND APPLIED SOCIOLOGY. In this course Dr. Ward will give the outlines of his entire system of Sociology. The first part of the course will be devoted to Pure Sociology, and will occupy about thirty lectures, while the second part will be treated in about eighteen lectures. The Pure Sociology might be called Social Mechanics, including both Social Statics and Social Dynamics. The Applied Sociology aims to show how this pure science may be utilized by society in the same way that other pure sciences are rendered useful to man. It will be based upon the argument of the second volume of Dr. Ward's "Dynamic Sociology." Students who expect to take this course should, if possible, read either before coming, or while taking the lectures, Dr. Ward's principal works, "Outlines of Sociology," "Dynamic Sociology," and "Psychic Factors of Civilization." Two lectures daily, 10.30 A. M., and 4 P. M.; Mondays to Saturdays, July 18 to August 13. 15 U.

4. PUBLIC LECTURES BY DR. WARD. Dr. Ward will deliver four public lectures on sociological subjects between July 18 and August 13, as follows:

(1) The Founder of Sociology, Auguste Comte.
(2) Nature and Nurture, or Heredity and Opportunity.

(3) The Increase and Diffusion of Knowledge.
(4) Social Salvation by Faith,—an Analysis of Kidd's "Social Evolution."

Miss Addams.

5. PUBLIC LECTURES BY MISS ADDAMS. During the week beginning August 12, Miss Jane Addams, the founder and head resident of Hull House Social Settlement, Chicago, will deliver nine lectures, as follows:

(1) Social Obligations of Citizenship.
(2) The Social Theories of Count Tolstoy.
(3) The Non-resistance of Tolstoy *versus* the Non-resistance of Jesus.
(4) English and American Social Settlements.
(5) Ethical Survivals in the Personal Conduct of Count Tolstoy.
(6) Ethical Survivals in the Management of Municipal Politics.
(7) Ethical Survivals in the Efforts of Charitable Organizations.
(8) Ethical Survivals in the Development of the Labor Movement.
(9) Ethical Survivals in the Experiments of Model Employers.

Professor Zueblin.

6. PUBLIC LECTURES BY PROFESSOR ZUEBLIN. Professor Charles Zueblin, of the University of Chicago, will give four lectures, August 20-22, as follows:

(1) The Higher Life of London (illustrated with slides).
(2) Thomas Hill Green and Political Ethics.
(3) Social Morality.
(4) Education and Culture. C.

President Andrews.

7. PUBLIC LECTURES BY PRESIDENT ANDREWS. President E. Benjamin Andrews, of Brown University, will give at least two lectures, July 31, as follows:

(1) Zacchaeus.
(2) Daniel.

Economics.

President Raymond.

1. PRINCIPLES OF ECONOMICS. An exposition of the fundamental laws of Political Economy. This is an elementary course, prerequisite to all advanced work in Economics. Ely's "Outlines of Economics," supplemented by lectures and assigned readings in the library. 9.00; 10 S.

Dr. Hamilton.

2. MONEY AND BANKING. This course will explain the nature and functions of money and trace its historical evolution; the different views as to the relation between the money supply, or the monetary policy of government, and the stability of prices, between the money supply and commercial prosperity, and their relation to the question of the obligations between debtor and creditor. The theories of bimetalism, monometalism, independent free coinage and paper fiat money will be examined, and several contemporaneous types of banking systems will be studied, including the scheme for a postal savings bank. Half course. Mondays to Saturdays, July 11 to August 12. 11.30; 10 P.

3. INDUSTRIAL PROBLEMS. This course will treat of questions arising out of the relations between labor and capital, and will include discussions of such subjects as industrial arbitration and conciliation, the sliding scale of wages, the profit sharing scheme, and co-operation. Half course. Mondays to Saturdays, July 11 to August 12. 3.00; 10 P.

Political Science.

Mr. Fast.

1. CIVIL GOVERNMENT IN WEST VIRGINIA. Introductory to this course will be a series of lectures and discussions on the types of local government in the several states, in the order of their historical development, with some reference to their origin; following this, the whole machinery of government in the state will be outlined and analyzed in its workings under the constitution and statutes. Designed primarily for teachers. 11.30; 4 P.

2. COMPARATIVE CONSTITUTIONAL GOVERNMENT. A comparative study of the constitutions of Great Britain, France, Germany, Switzerland, and other leading states of the world, of their striking features, and of the trend in the development of constitutional government. Lectures, co-operative topical work, and class discussions. Open to graduates and advanced students only. 10.30; 7 P.

Law.

Dean Johnson.

1. CRIMINAL LAW. Half course. First term. 9.00; 14 U.
2. CRIMINAL PROCEDURE. Half course. Second term. 9.00; 14 U.
3. CONSTITUTIONAL LAW. 11:30; 14 U.

Professor Brooke.

5. BLACKSTONE. 8.00; 11 U.

6. COMMON LAW PLEADING. 10.30; 11 U.

History.

Assistant Professor Sanders.

1. GENERAL HISTORY. This course is required for admission to college. No credit is given for it toward a degree, but it is offered by this department for the benefit of those who have not had its equivalent elsewhere, and for teachers who desire to strengthen their work on this subject. 10.30; 4 P.

2. GRECIAN HISTORY. This course is introduced by a glance at the civilization of the Tigris-Euphrates valley, of the Nile valley, and of the Phœnicians and Jews, and then traces the development of the life and thought of the Greek people as affected by their natural environment and by these earlier civilizations down to the fall of the Grecian political independence before Rome, and the fall of Greek philosophy before Christianity. An earnest endeavor is made to bring the student to see for himself in what the great contribution of Greece to civilization consists. 3.00; 4 P.

3. MEDIÆVAL HISTORY: THE RULE OF THE TEUTON. This course begins with a study of the primitive life and institutions of our Teutonic ancestors, and then, taking the career of the Frankish tribes as the central thread of the story, follows the history of Catholic Christian Europe down to the renaissance. 8.00; 4 P.

Mr. Fast.

4. AMERICAN HISTORY. A general survey with emphasis on the political and constitutional history of the United States. The course will embrace lectures; parallel readings from sources and secondary authorities; weekly written papers on the subject of preceding lectures; and a set of two special written reports worked up from material in the library: (a) a bibliography of some public man; and (b) some feature of the historical geography of a state. The course is designed for teachers and advanced students and presupposes some knowledge of the matters treated. "Epochs of American History" (3 vols.); Hart's "Revised Suggestions on the Study of the History and Government of the United States." 9.00; 4 P.

Greek Language and Literature.

Professor Woolery.

1. FIRST GREEK BOOK, CHAPTERS I-XL. This course is for beginners. Emphasis is laid on correct pronunciation, written

accent, memorizing, vocabularies, declensions and conjugations, and translating easy sentences from Greek into English, and from English into Greek, to illustrate the grammatical principles as set forth in this elementary book. Sufficient knowledge of the language may be obtained in this course to carry on the study by correspondence. White's "First Greek Book." 9.00; 8 P.

2. XENOPHON'S SYMPOSIUM. One year of Greek is required for admission to this course. Xenophon's Symposium by Winan. Goodwin's Grammar and Liddell and Scott's Lexicon in all courses. 8.00; 8 P.

3. LUCIAN'S DIALOGUES. Those who have had two years or more of Greek are eligible to membership in this course. "The Dialogues of the Dead" and other short dialogues will be read. "Selections from Lucian," by Williams. 10.30; 8 P.

4. A COURSE OF TEN LECTURES will be given during the summer quarter on subjects connected with Greek Life and Literature, of a semi-popular character, to an appreciation of which a knowledge of the Greek language is not necessary. Tuesdays. 8.00 P. M.; C.

Latin Language and Literature.

Professor Hare.

1. BEGINNING LATIN. Chase and Stuart's "First Year in Latin." 11.30; 12 P.

2. CÆSAR. Gallic War, books 1 and 2. For students who have finished an elementary Latin lesson book. 10.30; 12 P.

3. CICERO. 1st and 2nd orations against Catiline. 8.00; 12 P.

4. VIRGIL. Æneid, books 1, 2 and 3. 9.00; 12 P.

Professor Douthat.

5. VIRGIL'S ECLOGUES AND GEORGICS. Collection of working vocabulary. Translations oral and written. Roman life illustrated by lantern views and lectures. Chase and Stuart's "Virgil's Eclogues and Georgics." 11.30; 21 U.

6. LIVY, BOOK XXI. Translation both oral and written from Latin to English, and from English to Latin. Sight reading and translation at sight. Chase and Stuart's "Livy," Peck and Arrowsmith's "Roman Life in Prose and Verse," and Miller's "New Latin Composition." Roman life by lantern views and lectures. 9.00; 21 U.

9. EARLY LATIN. Translation both oral and written from Latin to English, and from English to Latin. Special subjects as-

signed for both kinds of translation. Text-books: Allen's "Remnants," Meny's "Fragments," Kelsey's "Fifty Topics in Roman Antiquities." Books of reference: Egbert's "Latin Inscriptions," Johnston's "Latin Manuscripts." Roman life by lantern views and lectures. 8.00; 21 U.

13. TACITUS: GERMANIA AND AGRICOLA. Translation both oral and written from Latin to English, and from English to Latin. Special subjects assigned for both kinds of translation. Text-books: Allen's "Germania and Agricola," Clement's "Latin Selections." Books of reference: Harper's "Classical Dictionary," Cape's "Early Empire." Roman life by lantern views and lectures. 10.30; 21 U.

Romance Languages and Literatures.

Dr. McKenzie.

1. ELEMENTARY FRENCH. For beginners. Grammar, reading, and as much practice in pronunciation and conversation as possible. Whitney's Grammar, Super's Reader; selections from modern authors. 8.00; 7 P.

4. INTERMEDIATE FRENCH. For students who have had one year of French or more. Reading and composition, with as much practice in conversation as possible. The first text read will be Racine's "Athalie" (edition published by Heath & Co.). 11.30; 7 P.

10. ITALIAN. For beginners. Grammar and reading. It is desirable that students who take this course should have some knowledge of Latin or French. Grandgent's Italian Grammar; selections from modern authors. 9.00; 7 P.

20. SEMINARY IN ROMANCE LANGUAGES. For qualified students advanced work will be arranged. The subject for the summer quarter will be the French Drama of the Seventeenth Century. The work will be done chiefly by private study, under the direction of the instructor, with meetings of the Seminary once a week. Credit will be given for this work as a half course or a full course, according to the amount of work done by each student.

Germanic Languages and Literatures.

Assistant Professor Truscott.

1. ELEMENTARY GERMAN. A course for beginners, the object being to acquaint the student with the elements of the grammar, to give him a reading knowledge of easy prose, and as much practice in pronunciation and conversation as possible. Thomas' Grammar, Joynes' Reader, Harris' Prose Composition. 9.00; 22 U.

4. INTERMEDIATE GERMAN. Practice in writing German and translation of English prose into idiomatic German. Reading material will embrace selections from authors of the classic and modern period. Texts: Schiller's "Wilhelm Tell," Goethe's "Hermann und Dorothea," Von Jageman's Prose Composition. 8.00; 22 U.

9. SCIENTIFIC GERMAN. This course is intended for students of science who have had at least a year of elementary German. The purpose will be to teach students to read at sight scientific articles in German. Gore's "German Science Reader," Cohn's "Ueber Bakterien." 10.30; 22 U.

17. ANGLO-SAXON. Open to advanced students in English or German. An introduction to the historical study of the English language. Translation of Anglo-Saxon prose; study of the word-forms with special reference to modern English. Bright's "Anglo-Saxon Reader." 11.30; 22 U.

Professor Ford.

18. THE FIRST TWO CENTURIES OF MODERN GERMAN LITERATURE. A series of six lectures on the struggles of German literature in the times of the reformation. The work given will be of a popular nature, interesting alike to students of history and literature, and will be supplemented by reading and references. First term. Wednesdays. 8.00 P. M.; C.

19. MODERN GERMAN LITERATURE. A series of six lectures on some of the latest great writers of Germany, intended to introduce students to the various movements which have come into German literature within the last quarter century. First term. Fridays. 8.00 P. M. ; C.

Courses 18 and 19 together will count as a one-third course.

English Language and Literature.

Dr. Antrim.

1. RHETORIC. It is the purpose of this course to ground the students in the principles of style and invention. That skill in the discovery and use of these principles may be acquired, examples from classic prose selections will be studied, and themes will be written. The text-book will be Genung's "Rhetoric." 11.30; 20 U.

2. HISTORY OF ENGLISH LITERATURE. The object of this course is threefold: (1) to give a general idea of English literature from the earliest times to the present day; (2) to make a careful study of the influences and ideals that characterize each period; and (3) to lay especial stress on epoch-making literary monuments, beginning with Beowulf, that a more or less intimate knowledge of a num-

ber of masterpieces may be gained. The mechanical element which enters into a study of literature and which often tends to destroy the interest naturally aroused by such a study will be so far as possible eliminated. The course will be based on Brooke's "History of English Literature," supplemented by frequent lectures. 8.00; 20 U.

3. SHAKESPEARE. A review of the English Drama from the Miracle and Mystery plays to the Elizabethan Drama, inclusive, will be followed by a study of Shakespeare's dramas in chronological order. The basis of the course is Boas' "Shakespeare and His Predecessors." Frequent lectures will be given, and one play will be critically read. 9.00; 20 U.

4. BROWNING. The life and works of Browning, and the influence he has had on his age. The most important of his shorter poems, and one of his longer poems, will be interpreted, but the class will be required to familiarize themselves with all of Browning's poetry. Corson's "Introduction to Browning." 10.30; 20 U.

Dr. Read.

5. CHAUCER. The "Prologue" will be read as the basis for a study of the development of the language. The development of English speech-sounds will be traced from the Old English down into the modern English. An introduction to the study of Comparative Philology will be given by a constant comparison of English with other members of the Germanic family. Due attention will be paid to Chaucer's method of handling metre. Morris' edition of the "Prologue," containing also the "Knight's Tale," etc., is recommended. Half course. First term. 3.00; 20 U.

6. PUBLIC LECTURES BY PRESIDENT BUTLER. President Nathaniel Butler, of Colby University, will give five lectures on English Literature, August 6 to 9:

(1) Nathaniel Hawthorne.
(2) Oliver Wendell Holmes.
(3) Henry Wadsworth Longfellow.
(4) Aims and Methods in the Study of Literature.
(5) The Past, Present and Future of the English Language.

The attention of students in English is called to course 17 in Germanic Languages, and course 2 in Sociology.

Elocution.

The work in this department will be limited to the first term of the summer quarter. It will be in charge of Prof. C. Edmund Neil, Professor of Elocution and Oratory in Denison University, Granville, Ohio, and Assistant Professor of the same subjects in Ohio Wesleyan University, Delaware, Ohio. Both class and private instruction will be given, as well as a series of interesting lectures and recitals. The

classes will be so graded as to meet the individual needs of the students, and will meet six days a week throughout the first term, at hours to be arranged with the instructor. For this work, moderate special fees are charged, but students who take Elocution and Oratory only are not required to pay the regular University fees.

Professor Neil.

1. ELOCUTION. Open to all students; especially adapted to beginners. This course includes the principles of expression, individual voice culture, physical culture, and drill in action.

2. LITERARY ANALYSIS AND RECITATION. The entire class is required to analyze and properly interpret a number of selections from standard authors, and each student will prepare and recite such selections as the instructor may assign.

3. ARGUMENTATION AND DEBATE. This course will be opened by a series of lectures on extempore speaking, parliamentary law, forensic oratory, and the laws of argumentation. Then will follow prescribed reading and preparation of briefs, extempore discussions, and practical debates between members of the class.

4. PRIVATE INSTRUCTION. Those who desire to make a special study of Elocution may arrange for private instruction, the character of which will depend on the needs of the individual students.

Professor Fulton.

Robert Irving Fulton, A.M., professor of Elocution and Oratory in Ohio Wesleyan University, of Delaware, Ohio, and also in Ohio State University, at Columbus, Ohio, is expected to give a number of lectures and recitals during the summer quarter.

Mathematics.

Professor Stewart.

1. UNIVERSITY ALGEBRA. Binomial Theorem. Theorem of Undetermined Coefficients, Theory and Use of Logarithms, Logarithmic and Exponential Series. Theory of Equations. Solution of Higher Numerical Equations. Wells' University Algebra. Students entering this course must be well prepared in Higher Algebra through quadratics. 10.30; 3 P.

3. PLANE AND SPHERICAL TRIGONOMETRY. Wells' "Plane and Spherical Trigonometry." Revised edition with tables. 11.30; 3 P.

4. ANALYTIC GEOMETRY. Cartesian Co-ordinates. Polar Co-ordinates. Conic Sections. Higher Plane Curves. Nichol's "Analytic Geometry." 8.00; 3 P.

Physics.

Professor Hodges.

1. ELEMENTARY PHYSICS. This course is required for admission to all departments of the University. No credit for it is allowed as college work, but it is given by this department for the benefit of those students who have not had opportunity to take equivalent work elsewhere. The course consists mainly of recitations, supplemented by experiments and demonstrations. A knowledge of elementary Algebra is required of students taking the course. Carhart and Chute's "Physics." 8.00; 11 S.

2. GENERAL PHYSICS. Mechanics, Sound, and Light. A course of lectures and recitations, accompanied by individual laboratory work. The laboratory work, though elementary, is strictly quantitative in its character. Required of all candidates for Scientific and Engineering degrees. Prerequisite, Plane Trigonometry. Ames' "Theory of Physics."

Lectures, Mondays, Wednesdays, Fridays. 9.00; 11 S.
Laboratory, Tuesdays, Thursdays. 2.00; 1 S.

4. EXPERIMENTAL PHYSICS. A laboratory course exclusively, consisting of elementary quantitative experiments. This course may be taken as an elective by students of whom courses 2 and 3 are not required. Prerequisite, Plane Trigonometry. Sabine's "Laboratory Course in Physics." 2.00; 1 S.

8. ELECTRICITY AND MAGNETISM. A short course of advanced work in these subjects. Prerequisites, courses 1 and 2 in Physics, and 5 in Mathematics. Half course. Mondays, Wednesdays. 10.30; 11 S.

9. ELECTRICAL MEASUREMENTS. A short course of advanced laboratory work. In this course the student uses measuring instruments of precision, sensitive galvanometers, apparatus for accurate measurement of resistances, current, electro-motive force, induction, magnetic properties of iron, etc. Prerequisite, course 8 in Physics. Course 6 in Mathematics must accompany or precede this course. Carhart and Patterson's "Electrical Measurements." Half course. Tuesdays, Thursdays. 10.30-12.30; 23 S.

Chemistry.

The rooms assigned to this department are located on the second floor of Science Hall, and consist of a lecture room and two large laboratories. Connected with these are a dark room, a weighing room and a preparation room. The laboratories afford working space for fifty students at a time, and are abundantly supplied with water and gas and the chemicals and apparatus necessary for practical work. This apparatus includes a large number of pieces used in illustrating

the elementary principles of the science, as well as many of the more expensive instruments used in analytical work. An excellent collection of the latest text and reference books is kept within easy reach of the students, and the aim has been to make the laboratory outfit as complete and ample as possible.

Professor Whitehill.

1. INORGANIC CHEMISTRY. This course is designed for beginners, and serves as a general introduction to chemical methods and operations. It includes a systematic study of the laws of chemical combinations, the source, preparation, properties and compounds of the non-metallic elements and the principles and theories of chemical philosophy. Experimental lectures, laboratory work and recitations. 10.30; 20 S.

2. INORGANIC CHEMISTRY. This course includes the study of the metallic elements, and special attention is paid to the application of Chemistry in Agriculture, Engineering, Medicine, and every-day life. Lectures, laboratory work, and recitations. Half course. First term. 9.00; 20 S.

3. ORGANIC CHEMISTRY. This course includes the study of the more important organic compounds, together with the laboratory processes for the preparation of such compounds. Lectures, laboratory work, and recitations. Half course. Second term. 9.00; 20 S.

4. QUALITATIVE ANALYSIS. A laboratory course designed for students who are familiar with the elementary principles of Chemistry. It includes the preparation of the more important gases and salts, and the detection of the elements and their compounds. Half course. First term. 2.00; 22 S.

5. ELEMENTARY QUANTITATIVE ANALYSIS. This course includes a small number of simple gravimetric, volumetric and electrolytic determinations, together with the study of the operations involved. Laboratory course. Half course. Second term. 2.00; 22 S.

8. SPECIAL WORK. Chemistry offers a wide field for investigation. Special work in any of the various departments of the science may be taken in the laboratory under the direction of the instructor, and credit will be given in proportion to the amount of work accomplished.

Agricultural Chemistry.

Professor Hite.

1. AGRICULTURAL CHEMISTRY. A course of lectures on the application of chemical principles to farm economy. Prerequisite, general elementary Chemistry. Johnson's "Agricultural Chemistry." 11.30; A.

2. AGRICULTURAL CHEMICAL ANALYSIS. A laboratory course in the analysis of farm products, soils, ashes, fertilizers, mineral and drinking waters, etc. Prerequisites, qualitative and quantitative analysis, and course 1 in Agricultural Chemistry. Wiley's "Principles and Practice of Agricultural Chemical Analysis." 2.00; A.

Geology.

Professor Brown.

1. GEOGRAPHIC GEOLOGY. The crust of the earth, river valleys, plateaus and mountains, man and nature, the economic products of the earth, and meteorological instruments and methods. Open to all students. Tarr's "Physical Geography." 10.30; 30 S.

2. ECONOMIC GEOLOGY. The Geology of the fuels—coal, oil and natural gas—soils, clays, fertilizers, precious stones, and building stones. The University is in the midst of a great coal producing region, while oil and gas wells are within easy reach. Students entering this course should have completed course 1 in General Geology. Recitations and lectures. Tarr's "Elements;" Merrill's "Stones for Building and Decoration.' 11.30; 30 S.

3. MINERALOGY. Crystallography, physical qualities of minerals, and description of minerals consisting of basic elements to the silicates. The University has a good collection of minerals for practical instruction. Open to all students. Recitations, lectures, and practical determinations. Dana's "Manual of Mineralogy." 9.00; 30 S.

Biology.

Professor Hartigan.

1. HUMAN ANATOMY. Free use will be made of models, charts, manikins, and the human skeleton and cadaver. Keene's edition of Gray's "Anatomy." 8.00; 30 U.

2. ZOOLOGY. A lecture course devoted to the consideration of comparative Zoology, the phenomena of tissue systems, their origin, specialization, and functions. Some attention will be given to embryology, the phenomena of protoplasm, and organic evolution. 9.00; 30 U.

3. FIELD BOTANY. A course in practical analytical Botany. Sufficient time will be devoted to the text to gain a working knowledge of terms and structure. As much of the work as possible will be done in the field. Each student will make a herbarium of at least twenty-five specimens, with full analysis of each, including drawings as indicated on the analysis chart. The texts used are Wood, Kellerman, and Gray. 10.30; 30 U.

4. PHYSIOLOGY. A lecture course on human and comparative Physiology. 11.30; 30 U.

Mr. Hoag.

5. GENERAL BIOLOGY. This course serves either as an introduction to other biological work, such as Zoology, Botany and Physiology, or as a course complete in itself. It is designed to give the student general conceptions of what living organisms are, how they perform their various functions, and how they are related to one another. In short, the attempt is made to present the fundamental phenomena of animal and plant life. The work will consist of examinations in the laboratory of types representing the main groups of animals and plants, and lectures and recitations on the more general features of their anatomy, physiology and classification.

2.00-4.00; 30 U.

6. HISTOLOGY. The student in this course will be taught first to prepare tissue for microscopical study, the various standard methods in technique being thoroughly given. After this a study will be made of vertebrate tissues, beginning with isolated cells and ending with sections of the various organisms. Half course. First term.

4.00-6.00; 30 U.

7. BACTERIOLOGY. This course is intended to meet the needs of three classes of students: first, those who wish a general course as an end in itself; second, agriculturists; third, physicians and medical students. The technique of bacteriological methods will be presented in detail. Special attention will be given to Bacteriology in its relation to dairying, and to practical medical work. Half course. Second term. 4.00-6.00; 30 U.

8. PUBLIC LECTURES BY MR. HOAG. In addition to the above courses, Mr. Hoag will deliver in Commencement Hall five public lectures untechnical and popular in character:

(1) Bacteria in Medicine and Agriculture.
(2) Some Great Naturalists.
(3) How Animals Develop from the Egg.
(4) The Relations Between Plants and Animals.
(5) Organic Evolution.

Dr. Ward.

9. PLANT EVOLUTION. A series of five popular lectures from the paleontological standpoint, accompanied by stereopticon views illustrating the vegetation of all geologic epochs in the order of development, from the Silurian to the Pleistocene. Between July 18 and August 13. C.

Civil and Mining Engineering.

Mr. Morris.

1. PROJECTIONS. Orthographic projections in one quadrant. Elementary problems in shades and shadows. Isometric and oblique projections. Recitations. Warren's text-books. 14 S.

2. DESCRIPTIVE GEOMETRY. Orthographic projections. Problems of the point, line and plane tangencies and developments. Prerequisite, Geometry complete. Recitations. Warren. 14 S.

3. LAND SURVEYING. Theory and practice of land surveying. Magnetic variations. Calculating the content. Retracing old lines. Division of lands. Establishment of true meridians. Care and use of instruments. Field practice. Prerequisite, Trigonometry. Lectures and recitations. Gillespie's "Surveying." 14 S.

4. TOPOGRAPHICAL SURVEYING. Topographic, hydrographic and burometric surveying. Prerequisite, Trigonometry. Lectures and recitations. Gillespie's "Higher Surveying." Half course. First term. 14 S.

5. MINE SURVEYING. Underground surveying. Prerequisite, Trigonometry. Lectures and recitations. Gillespie's "Higher Surveying." Half course. Second term. 14 S.

Professor Johnston.

6. MASONRY. Dams, foundations, arches, piers, and abutments. Prerequisite, Mechanics, complete. Recitations and lectures. Baker. 14 S.

7. BRIDGE DESIGN. The plate girder and Pratt truss. Prerequisite, four years' course in Mathematics. Merriman, Part III. 14 S.

8. RAILROAD SURVEYING. Theory and practice of railroad surveying. Prerequisite, Calculus. Field practice. Searles. 14 S.

9. SANITARY ENGINEERING. Sewers and drains, house drains, sewage disposal. Prerequisite, Theoretical Mechanics. Lectures and recitations. 14 S.

Mechanical Engineering.

The following groups of courses are offered: An elementary and an advanced course in manual training and mechanical engineering special courses. The first group consists of one full course of shop practice in wood and metal working (courses 1, 2, 4, Mechanical Engineering), and requires twelve actual hours each week. The second group consists of one full course in mechanical drawing (courses 21, 22, 23, Mechanical Engineering), and three full courses of shop practice in wood and metal working (courses 1, 2, 3, 4, 5, 6, 7, 8, 9, Mechanical Engineering), and requires forty-six actual hours each week. The third group comprises lectures in mechanical engineering courses and practical work in the drawing room, the work shops and the engineering laboratories of the Mechanical Department.

The above two courses in manual training aim to present the simple elements of some of the constructive arts which admit of being

developed into a logical series of exercises. Their merit is chiefly educational, rather than as possessing any intrinsic value in relation to the several branches of handicraft work from which they are taken. The primary object is the training of the eye to see the form of objects and of the hand to produce such forms in the materials most commonly used in constructive work. At the same time the student is acquainted with the use of the fundamental tools and with the accuracy called for in the production of the elements of construction and of simple combinations of the same in fitting parts of the work together.

The Mechanical Building will be open for instruction and practical work as follows: The metal-working shops and the drawing room from 7.30 to 12, and 1.30 to 5.30; the wood-working shops and the engineering laboratories, from 1.30 to 5.30. Special work in any of these lines may be taken under the direction of the head of the department. Credit will be given for the amount of work satisfactorily done. Such work may be so arranged that students may complete any one of the several courses of practical work offered in six weeks of four hours of actual work daily, or in the twelve weeks of the summer quarter of two hours of actual work daily.

Professor Aldrich.

1. WOOD-WORKING. Carpentry, framing, joinery and other bench work; selection of woods; care and use of fundamental edge tools. One-third course. Month of July. Mondays, Wednesdays, Fridays. 1.30 to 5.30; 22 M,

2. WOOD-WORKING. Wood-turning in hard and soft woods; simple geometric forms; face-plate work, chucking, boring, fitting, finishing. One-third course. August 1 to 19. Mondays, Wednesdays, Fridays. 1.30 to 5.30; 22 M.

3. PATTERN MAKING. Patterns for simple machine elements, with usual allowances for draft, shrinkage and finish. One-third course. August 22 to September 22. Mondays, Wednesdays, Fridays. 1.30 to 5.30; 22 M.

18. LECTURES ON WOOD-WORKING. Principles of design and construction of edge tools for working wood; use of wood in construction and pattern making. Accompanying courses 1, 2, 3, 5, Mechanical Engineering, and time assigned from same. Wednesdays, 1.30; 20 M.

19. LECTURES ON METAL-WORKING. Principles of design and construction of forming and edge tools, and of workshop appliances; use of iron and steel in construction. Accompanying courses 4, 6, 7, 8, 9, Mechanical Engineering, and time assigned from same. Mondays, Wednesdays, Fridays. 11.30; 20 M.

36. MATERIALS OF CONSTRUCTION. Metallurgy of iron and steel; use of iron and steel in engineering construction; speci-

fications, inspection, qualitative and quantitative methods of testing. J. B. Johnson's "Materials of Construction." 10.30; 20 M.

Mr. Jones.

21, 22, 23. MECHANICAL DRAWING. Lettering, use of instruments, geometric construction; projections, perspective; working drawings, tracing and blue printing; details of mechanical movements. Full course. Mimeographed notes, blue prints, and Tracy's or Anthony's "Mechanical Drawing." Tuesdays, Thursdays, 1.30 to 5.30; Saturdays, 8.00 to 12.00; 20 M.

24, 25, 26. MACHINE DRAWING. Conventional methods, detail and assembled drawings of machine parts from sketches; tracing and blue printing. Prerequisite, course 23, Mechanical Engineering. Full course. Anthony's "Machine Drawing." Blue prints of actual machines. Tuesdays, Thursdays, 1.30 to 5.30; Saturdays, 8.00 to 12.00; 20 M.

31. MACHINE DESIGN. Elements of machine design, conventional and rational; proportioning machine parts; influence of material and treatment on design. Prerequisite or accompanying course 3, Applied Mathematics. Supplemented by course 26, Mechanical Engineering. Smith's "Machine Design," Bevis & Lowe's "Manual of Machine Drawing and Design." 8.00; 20 M.

34. MECHANISM AND MACHINERY. Classification of machinery; principles of transmission and change of motion by linkages, rolling contact, toothed gearing, couplings, belt gearing, cams, parallel and straight-line motions. Prerequisite, course 3, Mathematics. F. R. Jones' "Machine Design," Part I. 9.00; 20 M.

46. EXPERIMENTAL MECHANICS. Theory, calibration and use of engineering instruments; experimental kinematics, statics and dynamics. Prerequisite, course 2, Applied Mathematics. One-third course. Month of July. Mondays, Wednesdays, Fridays. 1.30 to 5.30; 10 M.

47. POWER MEASUREMENTS. Efficiency tests of simple engines, pumps, dynamos, motors and machinery of power transmission; dynamometric power measurements; steam engine indicator practice and valve setting; determination of the quality of steam. Prerequisite, course 9, Applied Mathematics. One-third course. August 1 to 19. Mondays, Wednesdays, Fridays. 1.30 to 5.30; 1 M.

48. TESTING MATERIALS. Tests of wrought iron, cast iron, steel, timber, stone, brick, cement, and lubricating oil. Prerequisite or accompanying course 4, Applied Mathematics, and course 36, Mechanical Engineering. One-third course. Carpenter's "Experimental Engineering;" Benjamin's "Mechanical Laboratory Practice;" Johnson's "Materials of Construction." August 22 to September 22. Mondays, Wednesdays, Fridays. 1.30 to 5.30; 10 M.

Mr. West.

4. FORGING. Forming and welding iron, forging, tempering and annealing steel; selection of materials; making typical tools. One-third course. July 1 to 18, Mondays to Fridays, 7.30 to 12.00, and August 22 to September 22, Mondays, Wednesdays, Fridays, 1.30 to 5.30; 12 M.

5. FOUNDRY. Selection and use of molding sands, typical tools and appliances; molding and casting from exercise patterns. One-third course. July 19 to 29, Monday to Friday, 7.30 to 12.00; 11 M.

6. TIN-SMITHING AND PIPE-FITTING. Making typical joints and forms in sheet-metal work; cutting, drilling, threading and fitting for piping. One-third course. August 1 to 11, Monday to Friday. 7.30 to 12.00; 12 M.

7, 8, 9. MACHINE SHOP. Iron work at the bench,—chipping, filing and fitting; handwork with machine tools, drilling and tapping; machine work,—drill press, lathe, shaper. Full course. August 12 to September 22, Mondays to Fridays. 7.30 to 12.00; 13 M.

Mechanics and Applied Mathematics.

Professor Emory.

1. ELEMENTARY MECHANICS. Special course in elementary mechanics, treating of the principles of rational mechanics with little use of the Calculus, and from the physical standpoint, being a course for students pursuing the two-year certificate mechanical or electrical course, and intended for those preparing for the work of the artisan, foreman or draughtsman. Prerequisite, Trigonometry. 8.00; 2 P.

4. APPLIED MECHANICS. Strength of materials. Resistance and elasticity of materials, pipes, cylinders and riveted joint, cantilever, and simple beams, tension and compression, resilience, shear and torsion, strength of timbers, iron, steel, stone, cement, elastic limit, factors of safety. Design of simple structures. Prerequisite, course 3. Required of all Civil, Mining, Electrical and Mechanical Engineering Juniors. 9.00; 2 P.

10. DEVELOPMENT AND UTILIZATION OF POWER. Text book course. Mathematical study of the development of power, the Clausius, Rankine, and physical methods of the development of power, measurement of power, testing of apparatus and generators, power plant installation, and selective design. Complete calculations for power plant to perform some special work, such as water supply, coal handling, mine operation, etc. Prerequisites, course 3 and Calculus. Required of all Senior Civil and Mining Engineers, and of all Junior Mechanical and Electrical Engineers, and optional for graduates. 11.30; 2 P.

12. ENGINEERING CALCULUS. The application of the simple rules of the Calculus to engineering formulae and processes of the Mechanics. Special course for and required of Sophomores in the two-year certificate mechanical and electrical course. Prerequisite, Analytic Geometry. 10.30; 2 P.

Music.

The School of Music will be open during the summer quarter, offering the regular courses in Piano-forte and Organ playing, Voice Culture, Harmony, Theory, Violin, Mandolin, Guitar, Banjo, etc. This department occupies a separate building, fitted up especially for the purpose, containing all the necessary conveniences, and equipped entirely with new standard pianos. Teaching and practice rooms alike are large and commodious, and lighted by electricity.

Pupils of the School of Music are not required to pay the usual University fees, but are entitled to all the privileges of the other University students, including the numerous public lectures, which will be given frequently by eminent specialists. During the summer quarter, Piano, Vocal and Violin Recitals will be given by the Faculty of the School of Music, and by distinguished artists from abroad. The large and comfortable Commencement Hall, containing a superb Concert Grand Piano, will be used for these public renditions, as well as for the usual Pupils' Recitals.

The Library contains a large number of standard works upon Music, all of which are available to students. The Choral Society, Military Band, Orchestra, Mandolin, Guitar and Banjo Club are all free to the pupils of the School of Music who are competent to enter them. There is also a free course in sight reading, memorizing and technical work.

Tuition.

Tuition for a term of twelve weeks, two lessons per week (twenty-four lessons):

Piano (with Head of Department):

2 lessons a week, of 30 minutes each,.....$18.00
2 lessons a week, of 60 minutes, class of 2, each,..... 18.00
2 lessons a week, of 60 minutes, class of 3, each,..... 13.00
2 lessons a week, of 60 minutes, class of 4, each,..... 10.00

Piano (with Assistant):

2 lessons a week, of 30 minutes each,.....$12.00
2 lessons a week, of 60 minutes, class of 2, each,..... 12.00
2 lessons a week, of 60 minutes, class of 3, each,..... 9.00
2 lessons a week, of 60 minutes, class af 4, each,..... 8.00

Voice Culture (with the Director):

2 lessons a week, of 30 minutes each,.....$18.00

Violin (with Head of Department):
2 lessons a week, of 30 minutes each,.....$18.00
Mandolin, Guitar, Banjo:
2 lessons a week, of 30 minutes each,.....$12.00
2 lessons a week, of 60 minutes, class of 2, each,..... 12.00
2 lessons a week, of 60 minutes, class of 3, each,..... 9.00

Drawing and Painting.

The University provides a large, well lighted studio, containing drawing stands, easels, china kiln, etc., and a large collection of casts and models from the antique. Students also have access to the University museum for study, and to the Un versity library for works on the history and development of art.

Students may enter for class or private lessons. A term consists of twenty-four lessons—four lessons per week for six weeks, or, if desired, two lessons per week for twelve weeks.

Moderate special fees, which may be learned on application, are charged students in this department, but the regular University fees are not charged Art students.

Mrs. Hubbard.

1. DRAWING. Free-hand, light and shade drawing from cast and object, study of perspective, sketching from nature. Class lectures on composition and design. Clay modeling will be used as an aid in studying form. Work will be done with pencil, charcoal, crayon and India ink. 12 S.

2. DRAWING. A special course in drawing is arranged for teachers in public or normal schools. Studio work is varied with sketching and other outside study. 12 S.

3. OIL PAINTING. Color analysis and combinations. Painting from still life, fruits, flowers, draperies, etc. Landscape painting, figure painting. Study of the draped model. 12 S.

4. PASTEL PAINTING. The various color studies and design suitable for expression in this medium. Special instruction for pastel portraits. 12 S.

5. WATER COLOR PAINTING. Study from the flat, and from nature, still life, landscape or model. Design as shown in flowers and plant life, also conventionalized. Figure and portrait painting. 12 S.

6. CHINA PAINTING. Study of colors and combinations. Painting from the flat. Study of designs in flowers, landscape, etc., leading to original designs suitable for special pieces. China may be burned at the studio. 12 S.

Commercial School.

The courses offered during the summer quarter comprise such subjects as are usually given in an ordinary "business course," viz: Bookkeeping, Penmanship, Shorthand and Typewriting. The object of this course is to qualify students for office work.

Students who have work in any of the other departments of the University are permitted to come into this department and take all or part of this work without additional cost.

Mr. Willis.

1. BOOKKEEPING. Swartz's "Office Routine and Bookkeeping." 9.00; 23 S.
2. SHORTHAND. Dement's "Pitman System." 8.00; 23 U.
3. PENMANSHIP. 10.30; 23 U.
4. TYPEWRITING. 8.00 to 11.30; 24 U.

FREE PUBLIC LECTURES AND ENTERTAINMENTS.

July 1—Friday, 8 P. M.—Dramatic Impersonation: "David Copperfield," Prof. Neil.

2—Saturday, 8 P. M.—Lecture: The Art of Oratory, Prof. Neil.

4—Monday, 8 P. M.—Lecture: How We Won at Gettysburg, Rev. J. O. Thompson.

5—Tuesday, 8 P. M.—Lecture: Greek Life, Prof. Woolery.

6—Wednesday, 8 P. M.—Lecture: Modern German Literature, Prof. Ford.

7—Thursday, 8 P. M.—Lecture: Comparative Religion, Prof. Reynolds.

8—Friday, 8 P. M.—Lecture: Early Modern German Literature, Prof. Ford.

9—Saturday, 3 P. M.—Lecture: The Teacher's Preparation, Prof. Hodges.

9—Saturday, 8 P. M.—Dramatic Recital. Prof. Neil.

11—Monday, 3 P. M.—Lecture: Educational System of Germany, Prof. Ford.

11—Monday, 8 P. M.—Lecture: John Stuart Mill and Utilitarianism, President Raymond.

12—Tuesday, 8 P. M.—Piano Recital: Miss Martin, assisted by Prof. Ellenberger and Mr. Keene.

13—Wednesday, 8 P. M.—Lecture: Modern German Literature, Prof. Ford.

14—Thursday, 11.30 A. M.—Lecture: The Teacher's Problem, Prof. Hinsdale.

14—Thursday, 3 P. M.—Lecture: Comparative Religion, Prof. Reynolds.

14—Thursday, 4 P. M.—Lecture: The Teacher's Possibilities and Limitations, Prof. Hinsdale.

14—Thursday, 8 P. M.—Lecture: President Garfield as a Student and Teacher, Prof. Hinsdale

15—Friday, 11.30 A. M.—Lecture: Teaching Material, Prof. Hinsdale.

15—Friday, 2 P. M.—Lecture: Early Modern German Literature, Prof. Ford.

15—Friday, 4 P. M.—Lecture: Feeling as an Element in Education, Prof Hinsdale.

15—Friday, 8 P. M.—Lecture: Motor Forces in Our Educational History, Prof. Hinsdale.

16—Saturday, 3 P. M.—Lecture: The Art of Teaching, Prof. Hodges.

16—Saturday, 8 P. M.—Lecture: Plant Evolution (illustrated), Dr. Ward.

July 18—Monday, 3 P. M.—Lecture: Educational System of Germany, Prof. Ford.

18—Monday, 8 P. M.—Lecture: Charles Kingsley and Christian Socialism, President Raymond.

19—Tuesday, 2.30 P. M.—Lecture: The Founder of Sociology—Auguste Comte, Dr. Ward.

19—Tuesday, 8 P. M.—Lecture: Greek Life, Prof. Woolery.

20—Wednesday, 8 P. M.—Lecture: Modern German Literature, Prof. Ford.

21—Thursday, 8 P. M.—Lecture: Comparative Religion, Prof. Reynolds.

22—Friday, 3 P. M.—Lecture: Early Modern German Literature, Prof. Ford.

22—Friday, 8 P. M.—Lecture: Nature and Nurture, or Heredity and Opportunity, Dr. Ward.

23—Saturday, 3 P. M.—Lecture: The Recitation, Prof. Hodges.

23—Saturday, 8 P. M.—Lecture: Plant Evolution, Dr. Ward.

25—Monday, 3 P. M.—Lecture: Educational System of Germany, Prof. Ford.

25—Monday, 8 P. M.—Lecture: Thomas Carlyle and Paternalism, President Raymond.

26—Tuesday, 8 P. M.—Lecture: Greek Life, Prof. Woolery.

27—Wednesday, 8 P. M.—Lecture: Modern German Literature, Prof. Ford.

28—Thursday, 8 P. M.—Lecture: Comparative Religion, Prof. Reynolds.

29—Friday, 3 P. M.—Lecture: Early Modern German Literature, Prof. Ford.

29—Friday, 8 P. M.—Recital by Students of the School of Music.

30—Saturday, 3 P. M.—Lecture: Language Training, Prof. Hodges.

30—Saturday, 8 P. M.—Lecture: Plant Evolution (illustrated), Dr. Ward.

31—Sunday, 3 P. M.—Sermon: Zacchaeus, President E. Benjamin Andrews.

31—Sunday, 8 P. M.—Sermon: Daniel, President E. Benjamin Andrews.

Aug. 1—Monday, 3 P. M.—Lecture: Educational System of Germany, Prof. Ford.

1—Monday, 8 P. M.—Lecture: John Ruskin and Æsthetics, President Raymond.

2—Tuesday, 8 P. M.—Lecture: Greek Life, Prof. Woolery.

3—Wednesday, 2.30 P. M.—Lecture: The Increase and Diffusion of Knowledge, Dr. Ward.

3—Wednesday, 8 P. M.—Lecture: Modern German Literature, Prof. Ford.

Aug. 4—Thursday, 8 P. M.—Lecture: Comparative Religion, Prof. Reynolds.

5—Friday, 3 P. M.—Lecture: Early Modern German Literature, Prof. Ford.

5—Friday, 8 P. M.—Lecture: Plant Evolution (illustrated), Dr. Ward.

6—Saturday, 3 P.M.—Lecture: School Discipline, Prof. Hodges.

6—Saturday, 4 P. M.—Lecture: The College Ideal and American Life, President Butler.

6—Saturday, 8 P. M.—Lecture: Oliver Wendell Holmes, President Butler.

7—Sunday, 10.45 A. M.—Sermon: Some Assured Verities of the Christian Faith, President Butler.

7—Sunday, 8 P. M.—Sermon: A Cosmos of Beneficence, President Butler.

8—Monday, 3 P. M.—Lecture: Educational System of Germany, Prof. Ford.

8—Monday, 4 P. M.—Lecture: Aims and Methods in the Study of Literature, President Butler.

8—Monday, 8 P. M.—Lecture: Nathaniel Hawthorne, President Butler.

9—Tuesday, 2.30 P. M.—Lecture: Social Salvation by Faith—an Analysis of Kidd's "Social Evolution," Dr. Ward.

9—Tuesday, 4 P. M.—Lecture: The Past, Present and Future of the English Language, President Butler.

9—Tuesday, 8 P. M.—Lecture: Henry Wadsworth Longfellow, President Butler.

10—Wednesday, 2 P. M.—Lecture: Greek Life, Prof. Woolery.

10—Wednesday, 3 P. M.—Lecture: Modern German Literature, Prof. Ford.

10—Wednesday, 8 P. M.—Lecture: Plant Evolution (illustrated), Dr. Ward.

11—Thursday, 3 P. M.—Lecture: William Morris and Idealism, President Raymond.

11—Thursday, 8 P. M.—Lecture: Comparative Religion, Prof. Reynolds.

12—Friday, 3 P. M.—Lecture: Early Modern German Literature, Prof. Ford.

12—Friday, 8 P. M.—Piano Recital: Miss McMurphy, assisted by Prof. Ellenberger and Mr. Keene.

13—Saturday, 3 P. M.—Lecture: Moral Training, Prof. Hodges.

13—Saturday, 8 P. M.—Lecture: The Social Theories of Count Tolstoy, Miss Jane Addams.

14—Sunday, 3 P. M.—Lecture: The Social Obligations of Citizenship, Miss Jane Addams.

14—Sunday, 8 P. M.—Lecture: The Non-resistance of Tolstoy versus the Non-resistance of Jesus, Miss Jane Addams.

Aug. 15—Monday, 2 P. M.—Lecture: Arnold Toynbee and Humanitarianism, President Raymond.

15—Monday, 3 P. M.—Lecture: Educational System of Germany, Prof. Ford.

15—Monday, 8 P. M.—Lecture: English and American Social Settlements, Miss Jane Addams.

16—Tuesday, 3 P. M.—Lecture: Greek Life, Prof. Woolery.

16—Tuesday, 8 P. M.—Lecture: Ethical Survivals in the Personal conduct of Count Tolstoy, Miss Jane Addams.

17—Wednesday, 8 P. M.—Lecture: Ethical Survivals in the Management of Municipal Politics, Miss Jane Addams.

18—Thursday, 3 P. M.—Lecture: Comparative Religion, Prof. Reynolds.

18—Thursday, 8 P. M.—Lecture: Ethical Survivals in the Efforts of Charitable Organizations, Miss Jane Addams.

19—Friday, 3 P. M.—Lecture: Ethical Survivals in the Development of the Labor Movement, Miss Jane Addams.

19—Friday, 8 P. M.—Lecture: Ethical Survivals in the Experiments of Model Employers, Miss Jane Addams.

20—Saturday, 8 P. M.—Lecture: The Higher Life of London (illustrated), Prof. Zueblin.

21—Sunday, 3 P. M.—Lecture: Thomas Hill Greene and Political Ethics, Prof. Zueblin.

21—Sunday, 8 P. M.—Lecture: Social Morality, Prof. Zueblin.

22—Monday, 2 P. M.—Lecture: Education and Culture, Prof. Zueblin.

22—Monday, 8 P. M.—Lecture: Bacteria in Medicine and Agriculture, Prof. Hoag.

23—Tuesday, 8 P. M.—Lecture: Greek Life, Prof. Woolery.

24—Wednesday, 8 P. M.—Lecture: Some Great Naturalists, Prof. Hoag.

25—Thursday, 8 P. M.—Lecture: Comparative Religion, Prof. Reynolds.

26—Friday, 8 P. M.—Recital by Students of the School of Music.

27—Saturday, 8 P. M.—Lecture: How Animals Develop, Prof. Hoag.

29—Monday, 8 P. M.—Lecture: The Relations Between Plants and Animals, Prof. Hoag.

30—Tuesday, 8 P. M.—Lecture: Greek Life, Prof. Woolery.

31—Wednesday, 8 P. M.—Lecture: Organic Evolution, Prof. Hoag.

Sept. 1—Thursday, 8 P. M.—Lecture: Comparative Religion, Prof. Reynolds.

6—Tuesday, 8 P. M.—Lecture: Greek Life, Prof. Woolery.

8—Thursday, 8 P. M.—Lecture: Comparative Religion, Prof. Reynolds.

13—Tuesday, 8 P. M.—Lecture: Greek Life, Prof. Woolery.

SCHEDULE OF LECTURES, RECITATIONS, AND PRACTICAL WORK.

1898-99.

The numeral preceding the name of a study indicates the year, "1" being the beginning year in the study. "F." preceding the name of a study means "Freshman;" "So.," Sophomore; "J.," Junior; "Sr.," Senior. The numeral without parentheses immediately following the name of a study indicates the quarter, "1" being the first quarter's work in the study in the year indicated. The numeral in parentheses indicates the number of the course as given in the announcements of the department on a preceding page. Thus, "2 German 3 (6)" means the third quarter's work in second year German, which is described as Course 6 in the announcements of the department of Germanic Languages and Literatures on page 77. Wherever possible, the name of the instructor is given after the name of each study. With few exceptions, all classes meet five times a week, Mondays to Fridays, inclusive.

8.00 A. M.

The Preparatory and Commercial Schools.

SUMMER.	FALL.	WINTER.	SPRING.
	1 English 1 (1) Miller	1 English 2 (2) Miller	1 English 3 (3) Miller
1 French 1 (1) McKenzie	1 Algebra 1 (2) Barton	1 Algebra 2 (3) Barton	1 Algebra 3 (4) Barton
1 Physics 1 (1) Hodges	Phys. Geography (1) Brown	1 Physics 1 (1) Hodges	1 Botany 1 (2) Rumsey.
2 Latin 3 (6) Hare	1 Latin 1 (1) Hare	1 Latin 2 (2) Hare	1 Latin 3 (3) Hare
2 Greek 1 (1) Woolery	2 Greek 1 (2) Woolery	2 Greek 2 (3) Woolery	2 Greek 3 (4) Woolery
2 German 1 (4) Truscott	2 German 1 (4) Truscott	2 German 2 (5) Truscott	2 German 3 (6) Truscott
Shorthand 1 Willis	Principles of Commerce. Willis	CommercialLaw 1 Willis	Commercial Law 2 Willis

College of Arts and Sciences.

SUMMER.	FALL.	WINTER.	SPRING.
1 Logic 1 (2) Reynolds	1 Psychology 1 (1) Reynolds	1 Logic 1 (2) Reynolds	1 Ethics 1 (3) Reynolds
1 Pedagogy (1) Miller			

College of Arts and Sciences—Continued.

SUMMER.	FALL.	WINTER.	SPRING.
1 Sociology 3 (3) Raymond	1 Sociology 1 (1) Raymond	1 Sociology 2 (2) Raymond	1 Sociology 3 (3) Raymond
Mediæval Hist. (4) Sanders	Grecian History (2) Sanders	Roman Hist. (3) Sanders	International Law Johnson
F. Greek 1 (1) Woolery	F. Greek 1 (2) Woolery	F. Greek 2 (3) Woolery	F. Greek 3 (4) Woolery
J. Latin 1 (9) Douthat	J. Latin 1 (10) Douthat	J. Latin 2 (11) Douthat	J. Latin 3 (12) Douthat
1 French 1 (1) McKenzie			
2 German 1 (4) Truscott	2 German 1 (4) Truscott	2 German 2 (5) Truscott	2 German 3 (6) Truscott
English Lit. 1 (6) Antrim	English Lit. (7) Armstrong		American Lit. (9) Armstrong
Analytic Geom. (4) Stewart	Analytic Geom. (4) Stewart	Diff. Calculus (5) Stewart	Integ. Calculus (6) Stewart
Anatomy 1 (10) Hartigan	Struct. Botany (6) Hartigan	Zoology 1 (8) Hartigan	Zoology 2 (9) Hartigan.

College of Engineering and Mechanic Arts.

SUMMER.	FALL.	WINTER.	SPRING.
	F. Free H'd Drg, (1) Johnston.		F. Projections (2) Johnston.
	J. R. R. Surveying (6) Morris	J. R. R. Const. (7) Morris	J. Roads and Pavements (8) and Graphic Statics (9) Morris
Elem. Mechanics (1) Emory	J. Power 1 (3) Emory		
Machine Design (31) Jones			Machine Design (31) Jones
	Thermodynamics (37) Aldrich		Power Plants (42) Aldrich

College of Agriculture.

SUMMER.	FALL.	WINTER.	SPRING.
	History of Agr. (5) Atkeson		Agr. Science 1 (6) Atkeson
	Plant Breeding (3) Corbett	Fruit Culture (1) Corbett	Vegetable Gardening (2) Corbett

College of Law.

SUMMER.	FALL.	WINTER.	SPRING.
J. Rights of Persons and Property Brooke	J. Blackstone 1 Brooke	J. Blackstone 2. Brooke	J. International Law Johnson

9.00 A. M.

Preparatory and Commercial Schools.

SUMMER.	FALL.	WINTER.	SPRING.
	1 Physiology 1 (1) Hartigan	1 Arithmetic 1 (1) Barton	1 Algebra 1 (2) Barton
1 Greek 1 (1) Woolery	1 Greek 1 (1) Woolery	1 Greek 2 (2) Woolery	1 Greek 3 (3) Woolery
			1 Greek 1 (1)
1 German 1 (1) Truscott	1 German 1 (1) Truscott	1 German 2 (2) Truscott	1 German 3 (3) Truscott
3 Latin 2 (8) Hare	3 Latin 1 (7) Hare	3 Latin 2 (8) Hare	3 Latin 3 (9) Hare
	Commercial Arithmetic (9) Barton	Free Hand Drawing	Geometric Drawing
Bookkeeping (1) Willis			Commercial Geography Willis

College of Arts and Scienes.

SUMMER.	FALL.	WINTER.	SPRING.
1 Economics 2 (2) Raymond	1 Economics 1 (1) Raymond	1 Economics 2 (2) Raymond	1 Economics 3 (3) Raymond
1 Pedagogy 2 (2) Miller	2 Pedagogy 1 (4) Miller	2 Pedagogy 2 (5) Miller	2 Pedagogy 3 (6) Miller
Am. History 1 (2) Fast	Am. History 2 (3) Fast	Constitutional Law (1) Johnson	Am. History 3 (4) Fast
So. Latin 1 (5) Douthat	So. Latin 1 (6) Douthat	So. Latin 2 (7) Douthat	So. Latin 3 (8) Douthat
1 Italian 1 (7) McKenzie	1 Spanish 1 (10)	1 Spanish 2 (11)	1 Spanish 3 (12)
1 German 1 (1) Truscott	1 German 1 (1) Truscott	1 German 2 (2) Truscott	1 German 3 (3) Truscott
Shakespeare 1 (10) Antrim	English Lit. 1 (5) Armstrong	Tennyson (14) Armstrong	Browning (13) Armstrong
	F. Trigonometry 1 (3)	F. Algebra 1 (1)	F. Solid Geometry 1 (2)
1 Physics 1 (2) Hodges	1 Physics 2 (3) Hodges	2 Physics 1 (5 & 6) Hodges	2 Physics 2 (7 & 8) Hodges
1 Chemistry 2 (2 & 3) Whitehill	1 Chemistry 1 (1) Whitehill	1 Chemistry 2 (2 & 3) Whitehill	1 Chemistry 1 (1) Whitehill
Mineralogy 1 (8) Brown	Mineralogy 1 (8) Brown	Mineralogy 2 (9) Brown	Gen. Geology 1 (4) Brown
Zoology 1 (8) Hartigan			

College of Engineering and Mechanic Arts.

SUMMER.	FALL.	WINTER.	SPRING.
	Sr. Roof and Bridge Design (13) Johnston	Sr. Hydraulics (18) Johnston	Sr. Engineering Const. (20) Johnston
J. Applied Mechan. (4) Emory	J. Kinematics and Dynamics (2) Emory	J. Statics and Kinetics (3) Emory	J. Applied Mech. (4) Emory
Mechanism and Machinery (34) Jones			Machine Design 1 (30) Jones
		Mech. Technology (35) Aldrich	Engineering Design (33) Aldrich

College of Agriculture.

SUMMER.	FALL.	WINTER.	SPRING.
	Agr. Science 2 (7) Atkeson		Entomology (1) Hopkins
		Fruit Culture (1) Corbett	Vegetable Gardening (2) Corbett

College of Law.

SUMMER.	FALL.	WINTER.	SPRING.
J. Criminal Law and Procedure Johnson	Sr. Corporations Johnson	Sr. Const. Law Johnson	
	J. Contracts and Insurance Willey	J. Negotiable Paper Suretyship and Guar. and Bailments Willey	J. Evidence, Sales and Partnership Willey

10.30 A. M.

Preparatory and Commercial Schools.

SUMMER.	FALL.	WINTER.	SPRING.
1 General Hist. (1) Sanders	1 General Hist. (1) Sanders	U. S. History (2) Sanders	1 Civil Government (1) Fast
2 Latin 1 (4) Hare	2 Latin 1 (4) Hare	2 Latin 2 (5) Hare	2 Latin 3 (6) Hare
	2 French 1 (4)	2 French 2 (5)	2 French 3 (6)
	Plane Geom. 1 (6) Barton	Plane Geom. 2 (7) Barton	Solid Geom. (8) Barton
Penmanship 1 Willis	Shorthand Willis	Shorthand Willis	Shorthand Willis

College of Arts and Sciences.

SUMMER.	FALL.	WINTER.	SPRING.
1 Psychology 1 (1) Reynolds	Philosophy (4) Reynolds	Comp. Religion (5) Reynolds	Comp. Ethics (7) Reynolds
1 Pedagogy 3 (3) Miller	1 Pedagogy (1) Miller	1 Pedagogy 2 (2) Miller	1 Pedagogy 3 (3) Miller
Sociology (5) Ward	2 Economics 1 (4)	2 Economics 2 (5)	2 Economics 3 (6)
Pol. Science (4) Fast	Pol. Science (4) Fast		
So. Greek 1 (8) Woolery	So. Greek 1 (5) Woolery	So. Greek 2 (6) Woolery	So. Greek 3 (7) Woolery
Sr. Latin 1 (13) Douthat	Sr. Latin 1 (14) Douthat	Sr. Latin 2 (15) Douthat	Sr. Latin 3 (16) Douthat
	2 French 1 (4)	2 French 2 (5)	2 French 3 (6)
2 German 1 (7) Truscott	3 German 1 (8) Truscott	3 German 2 (9) Truscott	3 German 3 (10) Truscott
Browning (13) Antrim	2 English 1 (4) Armstrong	English Lit. (8) Armstrong	Bible as Lit. (15) Armstrong
F. Algebra 1 (1) Stewart	F. Algebra (1) Stewart	F. Solid Geom. (2) Stewart	Trigonometry (3) Stewart
2 Physics 2 (8 & 9) Hodges	1 Physics 1 (2) Hodges	1 Physics 2 (3) Hodges	2 Physics 3 (10) Hodges
1 Chemistry 1 (1) Whitehill	1 Chemistry 2 (2 & 3) Whitehill		
Geog. Geology (3) Brown			Physiography 1 (2) Brown
Field Botany (5) Hartigan	Gen. Biology (3) Hartigan	Desc. Botany (4) Hartigan	Field Botany (5) Hartigan

College of Engineering and Mechanic Arts.

SUMMER.	FALL.	WINTER.	SPRING.
Engineering Calculus (6) Emory	J. Mine and Topographical Surveying (10 & 11) Morris	J. Mech. Drawing (12) Morris	Applied Math. (1) Emory
	Sr. Stereotomy 1 (14) Johnston	Sr. Bridge Design (19) Johnston	Sr. R. R. Economy (21) Johnston
	Machine Design 2 (32) Jones	Prime Movers (41) Aldrich	Machinery (34) Jones

College of Agriculture.

SUMMER.	FALL.	WINTER.	SPRING.
	Agriculture (1) Atkeson		Animal Industry (3) Atkeson
		Econ. Botany 1 (1) Rumsey	Econ. Botany 2 (2) Rumsey
			Agr. Chemistry (1) Hite

College of Law.

SUMMER.	FALL.	WINTER.	SPRING.
Sr. Pleading and Practice and Torts Brooke	Sr. Pleading and Practice Brooke	Sr. Real Property Brooke	Sr. Torts Brooke
			Engineering Juris. Willey

11.30 A. M.

Preparatory and Commercial Schools.

SUMMER.	FALL.	WINTER.	SPRING.
1 Latin 1 (1) Hare	1 Latin 1 (1) Hare	1 Latin 2 (2) Hare	1 Latin 3 (3) Hare
2 French 1 (4) McKenzie	1 French 1 (1)	1 French 2 (2)	1 French 3 (3)
	2 Algebra 1 (3) Barton	2 Algebra 2 (4) Barton	2 Algebra 3 (5) Barton
	3 English 1 (4) Miller	3 English 2 (5) Miller	3 English 3 (6) Miller
	Penmanship Willis	Bookkeeping Willis	Bookkeeping Willis
			Physics (1)

College of Arts and Sciences.

SUMMER.	FALL.	WINTER.	SPRING.
2 Economics 2 (5) Hamilton	Med. History (4) Sanders	Modern History (5) Sanders	
Pol. Science (2) Fast	Pol. Science (3) Fast		Pol. Science (5) Fast
F. Trigonometry (3) Stewart	J. Greek 1 (9) Woolery	J. Greek 2 (11) Woolery	J. Greek 3 (13) Woolery
F. Latin 1 (1) Douthat	F. Latin 1 (2) Douthat	F. Latin 2 (3) Douthat	F. Latin 3 (3) Douthat
2 French 1 (4) McKenzie	1 French 1 (1)	1 French 2 (2)	1 French 3 (3)
Anglo-Saxon 1 (11) Truscott	1 German 2 (2) Truscott	1 German 3 (3) Truscott	Anglo-Saxon 2 (12) Truscott
Ethics 1 (3) Reynolds	Shakespeare 1 (11) Armstrong	Shakespeare 2 (12) Armstrong	English Lit. 1 (5) Armstrong
1 Rhetoric (2) Antrim	1 Rhetoric 1 (1) Whyte	1 Rhetoric 2 (2) Whyte	1 Rhetoric 3 (3) Whyte
Econ. Geology 2 (7) Brown	Gen. Geology 1 (4) Brown	Palaeontology (5) Brown	Econ. Geology 1 (6) Brown
Physiology (7) Hartigan	Anatomy 1 (10) Hartigan	Anatomy 2 (11) Hartigan	Physiology (7) Hartigan

College of Engineering and Mechanic Arts.

SUMMER.	FALL.	WINTER.	SPRING.
J. Power 2 (4) Emory	Engineering Calculus (6) Emory	Elem. Mechanics (1) Emory	
Metal Working Aldrich	Materials of construction (36) Aldrich	Steam Boilers (38) Heating and Ventilation (39) Jones	
	So. Land Surveying (3) Morris	So. Desc. Geom. 1 (4) Morris	So. Desc. Geom. 2 (5) Morris
	Sr. Metallurgy (16) and Mining Engineering (17) Johnston	Sr. Stereotomy 2 (15) Johnston	Plans and Specifications (22) Johnston

College of Agriculture.

	WINTER.	SPRING.
	Stock Breeding (2) Atkeson	Rural Economics (4) Atkeson

College of Law.

SUMMER.	FALL.	WINTER.	SPRING.
Sr. Const. Law & Corporations Johnson	J. Criminal Law & Parliamentary Law Johnson	J. Criminal Procedure Johnson	J. Agency & Damages Johnson
	Sr. Equity 1 Willey	Sr. Equity 2 Willey	Sr. Young Lawyer in Practice Johnson

1.30 P. M.

College of Arts and Sciences.

FALL.	WINTER.	SPRING.
Phys. Laboratory Hodges	Phys. Laboratory Hodges	Phys. Laboratory Hodges
Chem. Laboratory Whitehill	Chem. Laboratory Whitehill	Chem. Laboratory Whitehill

College of Engineering and Mechanic Arts.

SUMMER.	FALL.	WINTER.	SPRING.
Engineering Laboratory Aldrich & Jones	Engineering Laboratory Aldrich & Jones	Engineering Laboratory Aldrich & Jones	Engineering Laboratory Aldrich & Jones

2.00 P. M.

College of Arts and Sciences.

SUMMER.	SPRING.
3 Pedagogy 1 (7 & 8) Miller	3 Pedagogy 1 (7 & 8) Miller
1 Physics 1 (4) Hodges	
Phys. Labratory Hodges	
2 Chem. 1 (4) Whitehill	
Chem. Laboratory Whitehill	
Gen. Biology (3) Hoag.	

College of Agriculture.

SUMMER.	FALL.	WINTER.	SPRING.
Agr. Chem. Analysis Hite	Agr. Chem. Analysis Hite	Agr. Chem. Analysis Hite	Agr. Chem. Analysis Hite

3.00 P. M.

College of Arts and Sciences.

SUMMER.	FALL.	WINTER.	SPRING.
Pedagogy Seminary (9) Miller	Pedagogy Seminary (9) Miller	Pedagogy Seminary (9) Miller	Pedagogy Seminary (9) Miller
Chaucer (16) Read	Elocution (4) Whyte	Elocution (5) Whyte	Elocution (6) Whyte
2 Economics 3 (6) Hamilton	F. Algebra (1) Stewart	F. Solid Geom. (2) Stewart	F. Trigonometry (3) Stewart
Grecian History (2) Sanders			
Library Science (1) Miss Skinner			

4.00 P. M.

Sociology (5) Ward	Extempore Speaking Whyte	Extempore Speaking Whyte	Extempore Speaking Whyte
Histology and Bacteriology (12 & 13) Hoag	Military Drill	Military Drill	Military Drill

5.00 P. M.

Physical Training	Physical Training	Physical Training	Physical Training.

STUDENTS.

Graduate Students.

Bernhardt, Tillie Ruth Cope, Uniontown, Pa.
A.B., West Virginia University, 1897.
Philosophy, English Literature.

Hackney, Joseph Milton, Maidsville.
A.B., West Virginia University, 1892.
Agriculture, Horticulture, Entomology.

Hauber, Francis Aloysious, St. Mary's, Pa.
B.S., Villanova College, 1897.
Sociology.

Jaco, Lin Milton, Morgantown.
A.B., West Virginia University, 1892; LL.B., *ibid.*, 1895.
Philosophy, English Literature.

Jacob, Carl Kelly, Wellsburg.
B.S., Washington and Jefferson College, 1895.
Sociology.

Jones, Clement Ross, Knottsville.
B.S.C.E., West Virginia University, 1894; M.E., *ibid.*, 1897.
Mechanical Engineering, German.

Kunst, George Henry Augustus, Pruntytown.
A.B., West Virginia University, 1895; LL.B., *ibid.*, 1897.
Sociology.

Knutti, John Gottleib, Alpena.
A.B., West Virginia University, 1897.
Physics.

Moore, Frederic, Belington.
B.S., West Virginia University, 1897.
Philosophy, Biology, History.

Morris, Russell Love, Teays.
B.S.C.E., West Virginia University, 1895.
Ethics, Psychology.

Reynolds, Ethel Toy, Morgantown.
B.S., West Virginia University, 1897.
Greek.

Reynolds, Mabel Curry, Morgantown.
A.B., West Virginia University, 1896.
Philosophy.

South, Winifred Orienta, Morgantown.
A.B., West Virginia University, 1897.
Sociology, Philosophy, English Literature.

Swisher, Howard Llewellyn, South Branch Depot.
A.B., West Virginia University, 1897.
Sociology.

Van Gilder, Lida Edna, Morgantown.
A.B., West Virginia University, 897.
English Literature.

Wallace, Ira Melvin, Morgantown.
A.B., Thiel College, 1894.
German, Philosophy.

Warman, Altha, Morgantown.
A.B., West Virginia University, 1893.
Sociology, English Literature.

White, Anna Bancroft, Morgantown.
B.S., West Virginia University, 1895.
Sociology, English Literature, Physics.

White, Stella Sexton, Morgantown.
B.S., West Virginia University, 1895.
Sociology, English Literature, Physics.

—19.

The College of Arts and Sciences.

Seniors.

	Course.	
Arnett, Lonna Dennis	B.S.	Opekiska.
Baker, Edgar Daniel	B.S.	Beverly.
Barton, Daniel Jenifer	A.B.	Morgantown.
Bowman, Stuart Hampton	A.B.	Valley Furnace.
A.B., University of Nashville, 1896.		
Brand, Willa Norvilla	A.B.	Morgantown.
Clark, Friend Ebenezer	B.S.	New Martinsville.
Deffenbaugh, Walter Sylvanus	A.B.	Smithfield, Pa.
Dille, Thomas Ray	A.B.L.	Morgantown.
LL.B., West Virginia University, 1897.		
Elliott, Charles S	B.S.	Kenneth, Pa.
Fast, Richard Ellsworth	Ph.B.	Morgantown.
LL.B., West Virginia University, 1886.		
Goodwin, Elmer Forrest	A.B.L.	Bridgeport.
*Heavener, Ralph Webster	B.L.	Buckhannon.
LL.B., West Virginia University, 1897.		

*Died March 19, 1898.

Seniors—Continued.

COURSE.

Kilmer, Wade Culler.....A.B.L. .....Martinsburg.
McCoy, Paul.....A.B.L. .....Fairmont.
Moreland, Eleanor Brown.....A.B. .....Morgantown.
Moore, Bismarck Gilbert.....A.B. .....Proctor.
Nelson, J. Frank.....A.B.....Capon Bridge.
Post, Arthur Lee.....A.B.....Good Hope.
Pratt, Rachel Evelyn.....A.B. .....Wheeling.
Reger, Roy.....A.B.....Rural Dale.
Shaw, Harry.....A.B.L. .....Fairmont.
LL.B., West Virginia University, 1897.
Sheerin, James.....A.B.....Morgantown.
Smith, Lee.....A.B.....Uniontown, Pa.

—23.

Juniors.

Berkshere, Clarence Emmet.....A.B.....Maidsville.
Carskadon, Edward Blackburn.....A.B.L.....Headsville.
Clemans, Willie Grant.....A.B.L. .....Benson.
Eddy, Alexander L.....A.B.....Cross Roads.
Holden, Charles Fenton.....Ph.B. .....Clarksburg.
Horn, James William.....A.B.....Capon Bridge.
Krebs, George Robert.....B.S.....New Martinsville.
Laughlin, Benjamin Franklin.....A.B. .....Grafton.
Law, James Edman.....A.B.L. .....Salem.
Lowe, Scott Cephas.....A.B.L. .....Eldora.
Morris, Robert.....A.B. .....Harrisville.
A.B., University of Nashville, 1896.
Pollock, William McCally.....A.B. .....Morgantown.
Romine, Alexander Pickens.....A.B. .....Johnstown.
Sample, Charles Washington.....A.B.L. .....Randall.
Sawtell, Archie Leroy.....A.B.L. .....Wheeling.
Trembly, Charles Edward.....A.B.....Terra Alta.
Trussell, Bernard Hopkins.....A.B.L. .....Shepherdstown.
White, Henry Middleton.....A.B.L. .....Camden.
Wood, Lucy Berkshere.....A.B. .....Morgantown.

—19.

Sophomores.

Barbe, Clyde Davis.....A.B. .....Morgantown.
Barnes, Isaac Allen.....Ph.B. .....Morgantown.
Beltzhoover, George Morris, Jr.....A.B. .....Shepherdstown.
Gore, Howard Mason.....A.B. .....Clarksburg.

COURSE.

Hall, Leonard S.	A.B.	New Martinsville.
Hoff, Silas Marion	A.B.	Auburn.
Horner, Thomas Ramage	Ph.B.	Dayton.
Hughes, Alvaroe Glen	A.B.L.	Ravenswood.
Janes, William	B.S.	Nicklow.
Jamison, Gillian	B.L.	Morgantown.
Jarvis, Cecil C.	Ph.B.	Clarksburg.
Jenkins, U. I.	A.B.	Johnstown.
Jefferds, Joseph Crosby	A.B.	Charleston.
Johnson, John White	A.B.	Fairmont.
Jones, Hannah Louise	B.L.	Morgantown.
Lowe, Walter Loring	B.S.	Shinnston.
Mahone, Luther Dolliver	Ph.B.	Summersville.
McDonald, Peerce Naylor	A.B.	Charlestown.
McGlumphy, Walter Alexander	A.B.	Rock Lick.
Meredith, James Alva	A.B.L.	Alma.
Porterfield, Allen Wilson	A.B.	Bedington.
Reed, Semmes	A.B.	Elkins.
Reynolds, Harry Dunlap Grenelle	A.B.	Wheeling.
Rightmire, Ina	B.L.	Grafton.
Robe, Wilbur Lawrence	A.B.	Morgantown.
Roller, Benjamin Richardson	A.B.	Charleston.
Roller, Robert Douglas, Jr.	A.B.	Charleston.
Sanders, Mary Virginia	B.S.	Maidsville.
Scott, Buckner Fairfax	A.B.	Terra Alta.
Shuttleworth, Benj. Franklin, Jr.	Ph.B.	Clarksburg.
Smith, Alpheus Wilson	A.B.	Philippi.
Whitescarver, Edward M.	A.B.	Pruntytown.
Yeager, Louis Armstrong	A.B.L.	Marlinton.

—33.

Freshmen.

Bayles, Willie Halderman	Ph.B.	Gladesville.
Beall, Clarence Hough	A.B.	Morgantown.
Brahm, Grace Lunsford	A.B.	Fairmont.
Brown, John Matthew Guy	A.B.L.	Morgantown.
Bush, Ira Benton	A.B.	Auburn.
Butcher, Willa Hart	A.B.	Fairmont.
Cameron, Leila Hope	A.B.	Morgantown.
Charter, Lathrop Russell, Jr.	A.B.	West Union.
Cobun, Linnie Belle	A.B.	Morgantown.
Cloebank, Ora O.	Ph.B.	Gladesville.

Freshmen—Continued.

COURSE.

Connell, John Harden	A.B.	Wellsburg.
Cooper, Price Winfred	A.B.	Auburn.
Cox, Lawrence Morgan	A.B.	Morgantown.
Crossland, Howard Ralph	B.S.	New Haven, Pa.
Dille, Rachel Jane Hagans	A.B.	Morgantown.
Dodson, Raymond	B.S.	Spencer.
Eary, John Wesley	A.B.L.	Victor.
Frankenberger, Hugo	A.B.	Charleston.
Gandy, Frank W.	A.B.	Independence.
Garrison, Harry A.	A.B.	Morgantown.
Garrison, James A.	Ph.B.	Jollytown, Pa.
Hawse, Allen Lee	A.B.	Needmore.
Harvey, John Speed	B.L.	Morgantown.
Harvey, Marie Eleanor	B.L.	Morgantown.
Hayes, Flora Ray	B.L.	Morgantown.
Hayes, Jeannette Clements	B.L.	Morgantown.
Hickman, Charles Benton	A.B.	Fairmont.
Horner, Henrietta	A.B.	Dayton.
Hott, David, Jr.	A.B.	Martinsburg.
Hubbard, Beulah Brock	Ph.B.	Morgantown.
Hutchinson, Frank David	A.B.	Keyser.
John, William S.	A.B.	Rosedale, Pa.
Johnson, Sarah Waugh	A.B.	Morgantown.
Juhling, Ernest Sebastion	A.B.	New Haven.
Keener, Hayes Harold	A.B.	Dunkard, Pa.
Killingsworth, Richard Huffman	B.S.	Truebada.
Lardin, Frank Miller	A.B.L.	Masontown, Pa.
Lemen, David	A.B.	Shepherdstown.
Long, James Curry	B.S.	New Haven, Pa.
Marten, William Gregery	A.B.	Shepherdstown.
Maxwell, Haymond	Ph.B.	Clarksburg.
McChesney, Alexander Gallatin	A.B.	Charleston.
McCrum, Arlington Bliss	A.B.	Aurora.
McGrew, Julia	B.L.	Morgantown.
McVicker, Alberta Claire	B.L.	Morgantown.
McWhorter, Charles N.	A.B.L.	Lewisburg.
Meyers, Howard Melchior	A.B.	Bramwell.
Miller, Dwight Edmund	A.B.	Morgantown.
Miller, Gilbert Benton	A.B.	Kearneysville.
Miller, Sterling Jackson	A.B.	Ravenswood.
Miller, James Franks	Ph.B.	Oldframe, Pa.
Moreland, James Rogers	A.B.	Morgantown.
Morgan, Lily Sarah	A.B.	Rivesville.

Freshmen—Continued.

	Course.	
Muldoon, John Dement	A.B.	Triadelphia.
Neely, Matthew Mansfield	A.B.	Smithton.
Norris, Ruby E.	B.S.	Glenville.
Naret, Joel Quarrier	B.S.	Charleston.
Poe, Clarence	A.B.	Grafton.
Provence, Leana	B.L.	Morgantown.
Rex, Edward Bower	A.B.L.	Jefferson, Pa.
Rose, Herschel Hampton	A.B.	Mannington.
Rogers, Harold Frautz	A.B.	Moundsville.
Ross, John G.	A.B.	Morgantown.
Sennett, Maud Savilla	A.B.	Morgantown.
Shaffer, Philip Anderson	B.S.	Martinsburg.
Shisler, John Huffman	B.S.	Morgantown.
Smith, Charles Sheldon	A.B.	Morgantown.
Smith, DaCosta	A.B.	Weston.
Smith, James Otis	A.B.	Marlinton.
Snyder, Kenton Matthews	A.B.L.	Lewisburg.
St. Clair, Harry A.	A.B.	Stewartstown.
Strosnider, Homer	A.B.	Center Point.
Summers, Porter	A.B.L.	Glenville.
Vannoy, John Dexter	Ph.B.	Tanners.
Waddell, Charles Walter	A.B.	Brandonville.
Waddell, Lynne	B.L.	Brandonville.
Willey, Chauncey DeWitt	A.B.L.	Morgantown.

—77.

Premedical Students.

Bee, William Edward	Richardson.
Boyers, Arthur Lee	Morgantown.
Cameron, Earl Hare	Morgantown.
Chalfant, Estalee Martha	Peora.
*Darrall, Boyd	Masontown, Pa.
Dent, Samuel Marmaduke	Duke.
Evans, James	Morgantown.
Evans, Benjamin Bertram	Elkhorn.
Hall, Lloyd L.	Laurel Point.
Hall, Harry Hopkins	Parkersburg.
Heath, Robert Elzie	Oldframe, Pa.
Honaker, George Thomas	Duhring.
McClung, James	Rupert.
Midelburg, Charles	Charleston.
Naret, Edward Linden	Morgantown.

*Died April 19, 1898.

Newman, James Ward.....Andy.
Nichols, Albert Bentley.....Bristoria, Pa.
Ogden, Chester Ruhl.....Clarksburg.
B.S., Salem College, 1897.
Pepper, Claude.....Cherry Camp.
Ralston, Charles Francis.....Harrisburg, Pa.
Smith, Vivian K.....Wheeling.
Steele, Clark.....Miracle Run.
St. Clair, Franklin John.....Morgantown.
Swartzwelder, Albert Lawrence.....McKeesport, Pa.
Veon, Howard H.....Cluster
Williamson, Harry Robert.....Paw Paw
Willis, Carson Allen.....Bridgeport.
Yost, George Fletcher Camlin.....Centre.
—28.

Special Students.

Aldrich, Mary Lannia.....Morgantown.
Atkinson, George Wesley, Jr.....Charleston.
Barrickman, Van Ara.....Morgantown.
Brown, Alexandria Gay.....Morgantown.
Burlingham, William.....Charleston.
Collett, Albert.....Beverly.
Dering, Grace Enzey.....Morgantown.
Douthat, Luther Lee.....Morgantown.
Dovener, William N.....Wheeling.
Egbert, Ella Elizabeth.....North Hector, N. Y.
Fast, Mary Virginia.....Morgantown.
Flennekin, John B.....Fredericktown, Pa.
Gerwig, Edward Charles, Jr.....Parkersburg.
Grant, Hannah Elizabeth.....Morgantown.
Grant, Edith Mary.....Morgantown.
Hackney, Carrie Belle.....Morgantown.
Hartley, Harry John.....Fairmont.
Hoover, Charles V.....McClellandstown, Pa.
Hopkins, Roy Samuel.....Morgantown.
John, Daisy Belle.....Morgantown.
Jones, Bettie Cook.....Morgantown.
Keene, Jewel Alexander.....Morgantown.
Killingsworth, Richard Huffman.....Truebada.
Kincaid, William Levi.....Deitz.
Lewis, Charles Edward.....Pittsburg, Pa.
Meade, Robert Nelson.....Hinton.
McMurphy, Russell.....Oak Park, Ill.

Special Students—Continued.

Miller, Archie Hamilton.....Morgantown.
Pierce, Olive Dwight.....Morgantown.
Richardson, Homer Campbell.....New Martinsville.
Rudolph, Aaron Hoard.....Allegheny, Pa.
Shape, Francis Allfree.....New Salem, Pa.
Smith, Gerald Newton.....Dayton.
Utt, Oranna Ellen.....Morgantown.
Van Gilder, Emma Leona.....Morgantown.
Waddell, Lynne.....Brandonville.
Whitehill, Elizabeth Wilson.....Morgantown.
Whitescarver, Elizabeth Lee.....Pruntytown.
Willey, Guy Allen.....Morgantown.
Wood, Daise Mae.....Morgantown.
—40.

College of Engineering and Mechanic Arts.

Seniors.

COURSE.

Bruner, William Jacob.....C.E. .....Wheeling.
Cole, Harry Outen.....C.E. .....Morgantown.
Davis, Fred Arthur.....C.E. .....Morgantown.
Laughead. Berton Maison.....C.E. .....Morgantown.
Leach, Elmer.....C.E. .....Wolf Creek.
McCoy, Charles Ephraim.....C.E. .....Buffalo.
—6.

Juniors.

Abersold, Jacob Julius.....C.E. .....New Martinsville.
Davidson, Charles Peyton.....M.E. .....Flemington.
Frum, Floyd Neely.....C.E. .....Bridgeport.
Giffin, James Vincent.....C.E. .....Roney's Point.
Gramm, George Edgar.....M.E. .....Grafton.
Green, Paul Evans.....C.E. .....Wheeling.
Holy, George Henry Ferdinand.....M.E. .....Grafton.
Konrad, Philip.....C.E. .....New Martinsville.
Llewellyn, Lee.....C.E. .....Duke.
Quimby, Charles Henry, Jr.....C.E. .....Wheeling.
Snyder, Jules Verne.....C.E. .....Lewisburg.
Tait, Alexander Gordon.....C.E. .....Randall.
—12.

Sophomores.

COURSE.

Eakin, J. Ross.....C.E.....New Martinsville.
Evans, Edward H.....C.E.....Elkhorn.
Frey, Homer A.....M.E.....Ronceverte.
Oliphant, Ethelbert Copeland.....C.E.....Oil City, Pa.
Thompson, Louis Clarence.....M.E....New York City, N. Y.
Whitham, William Henry.....C.E.....Morgantown.
Willis, John Augustine.....M.E.....Summit Point.

—7.

Freshmen.

Gibson, Morrow Ross.....C.E.....Valley Grove.
Gibson, William Herbert.....C.E.....Tunnelton.
Hennen, Ray Vernon.....C.E.....St. Cloud.
Holland, Walter F.....C.E.....Morgantown.
Jenkins, Opha Fleming.....M.E.....Astor.
Johnston, Thomas Brodie.....C.E.....Oil City, Pa.
Lang, Thomas Simeon.....C.E.....Bridgeport.
McKinney, Odell Payne.....M.E.....Fairmont.
McMechen, Frank List.....M.E.....McMechen.
Moreland, Henry Lazier.....M.E.....Morgantown.
Ranson, Lyle Montgomery.....M.E.....Harper's Ferry.
Randolph, Clyde.....M.E.....Salem.
Read, Robert Gwynn.....M.E.....Elkins.
Sage, Archie Bruce.....M.E.....Wellsburg.
Shelby, Edward Frank.....C.E.....Uniontown, Pa.
Six, William Louis.....C.E.....Wadestown.
Utt, Desmoines.....M.E.....Morgantown.
Whitham, George Robins.....M.E.....Morgantown.
Zevely, Harry John.....M.E.....Wheeling.

—19.

College of Agriculture.

Graduate Student.

Hackney, Joseph Milton.....Morgantown.
A.B., West Virginia University, 1892.
Agriculture and Animal Industry.

—1.

Senior.

COURSE.

Naret, William Frazier.....B.Agr.....Morgantown.

—1.

Freshmen.

COURSE.

Atkeson, Thomas Zephaniah.....B.Agr. .....Buffalo.
Symms, Clarence.....B.Agr. .....Karn.
Varner, Walter Forrest.....B.Agr. .....Stewartstown.
—3.

Special Students.

Atkeson, Karl Clark..... .....Buffalo.
John, Gilbert Madison..... .....Morgantown.
Miller, Archie Hamilton..... .....Morgantown.
Parsons, Franklin Frederick.....Pt. Pleasant.
Whitlock, Robert Edgar..... .....Parkersburg.
—5.

College of Law.

Graduate.

Kenney, Amos E..... .....Arnoldsburg.
LL.B., West Virginia University, 1897.
—1.

Seniors.

COURSE.

Brown, John Elias.....LL.B.....Butler, Pa.
Champe, Vernon Corlin.....LL.B. .....Montgomery.
Chapman, Frank A.....LL.B.....Holiday's Cove.
Corder, John Floyd.....LL.B. .....Pepper.
Crile, Lafayette Clark.....LL.B. .....Clarksburg.
Eaton, Harry Anthony.....LL.B.....Yale, Ky.
A.B., West Virginia University, 1897.
Ellison, Stephen Adolphus.....LL.B. .....Charleston.
Friedeman, Leon.....LL.B. .....Charleston.
Heironimus, Robert Deen.....LL.B. .....Davis.
Ice, William Thomas, Jr.....LL.B. .....Philippi.
A.B., West Virginia University, 1897.
Kauffeld, Elias..... LL.B. .....Pittsburg, Pa.
Kelso, Arthur Isaac..... LL.B.....Mt. Lake Park, Md.
Lilly, William Riley.....LL.B.....Flat Top.
Martin, E. R. B..... LL.B. .....Middlebourne.
McClaugherty, Bernard.....LL.B. .....Princeton.
McGregor, Rob Roy.....LL.B. .....Cairo.
Newman, Robert Beauchamp.....LL.B. .....Creston.
Reynolds, Edward Bunker.....LL.B. .....Keyser.
Spurlock, H. P.....LL.B. .....Ceredo.
Stanley, Amos Oregon..... LL.B. .....Bunners.
Thomson, Alfred Nevette..... LL.B. .....Morgantown.
—21

Juniors.

COURSE.

Anderson, George Edward.....LL.B. .....Latrobe, Pa.
Berry, William Henry.....LL.B.....Bruceton Mills.
Bircher, George Calvin.....LL.B. .....Randall.
Bond, Edwin Sartorus.....LL.B. .....Horton.
Boyd, George Frank.....LL.B.....Pennsville, Pa.
Brown, James Estill.....LL.B. .....Bluefield.
Butler, Seaton Garland.....LL.B. .....Parkersburg.
Campbell, Carl Barbour.....LL.B. .....Huntington.
Coberly, James.....LL.B. .....Elkins.
Cobun, Miles Boyd.....LL.B. .....Masontown.
Davis, Thomas Jeffrey.....LL.B. .....Harrisville.
Dobbs, Lee Fillmore.....LL.B. .....Wheeling.
Donley, Edward Gregg.....LL.B.....Mt. Morris, Pa.
Downey, William Walton.....LL.B.....Bunker Hill.
Drane, Harry Keller.....LL.B. .....Piedmont.
Duff, Gordon G.....LL.B. .....Parkers.
Dunn, Hugh Alba.....LL.B. .....Peterstown.
Elder, William Clarence.....LL.B. .....Boothesville.
Englehart, William Milton.....LL.B. .....Guseman.
Ferguson, Henry Creed.....LL.B. .....Cottageville.
Flournoy, Richard Parke.....LL.B. .....Charleston.
Frazer, James Carroll.....LL.B. .....Martinsburg.
Frazer, Leila Jessie.....LL.B. .....Martinsburg.
Harbert, William Francis.....LL.B. .....Lumberport.
Hatfield, John.....LL.B.....Fordyce, Pa.
Henderson, David Woodward.....LL.B.....Tippecanoe, Pa.
Hoge, Robert Roy.....LL.B. .....Hinton.
Holsberry, Leroy Virgil.....LL.B. .....Kalamazoo.
Horner, Marvin Sacket.....LL.B.....Ohl, Pa.
Horner, George D.....LL.B. .....Clarksburg.
Howard, Lester Albert.....LL.B.....Connellsville, Pa.
Hundley, John Palmer.....LL.B. .....Masontown.
Jacob, Carl Kelly.....LL.B. .....Wellsburg.
B.S., Washington and Jefferson College, 1895.
Kennedy, William Grant.....LL.B.....Tarentum, Pa.
Leech, J. Lee.....LL.B. .....Mannington.
Mansbach, Isaac.....LL.B.....Cumberland, Md.
Marple, Albert Enoch.....LL.B. .....Calcutta.
Martin, Clarence Eugene.....LL.B. .....Martinsburg.
Maynard, John Franklin.....LL.B. .....Bluefield.
McCaffrey, Bert.....LL.B.....Bartramville, Ohio.
McCandless, Ira Dell.....LL.B. .....Parkersburg.
McClung, Dennis.....LL.B. .....Rupert.
McLane, Samuel Henry.....LL.B. .....Orpha.

COURSE.

Meek, John Henry.....LL.B. .....Preston.
Miller, Robert Hamilton.....LL.B.....Gauley Bridge.
Mitchell, Fred Davidson.....LL.B. .....Belleville.
Morris, Pressley Dallas.....LL.B. .....Wileyville.
Musgrave, George Curtis.....LL.B.....Point Pleasant.
Musgrave, Frederick Gerald.....LL.B.....Point Pleasant.
Newlon, Granville Dearing.....LL.B. .....Buckhannon.
Peters, Francis Marion.....LL.B. .....Dunlow.
Poteet, Lucian Emrow.....LL.B.....Red Star.
Poling, William Heishell.....LL.B. .....Romney.
Ray, David Estile.....LL.B. .....Sissonville.
Shafer, Harry Stalnaker.....LL.B. .....Parsons.
Shrewsberry, Robert Lee.....LL.B.....Camp Creek.
Srolowitz, Max Herman.....LL.B.....Wheeling.
Sweeney, John E. Bell.....LL.B. .....Wheeling.
B.S., Washington and Jefferson College, 1896.
Swiger, John Russell.....LL.B. .....Dola.
Swint, Charles Patrick.....LL.B. .....Weston.
Thomas, James.....LL.B. .....Algoma.
Thompson, Holland Dimmitt.....LL.B.....Three Churches.
Vinson, Don.....LL.B. .....Williamson.
Welch, Richard Adams.....LL.B. .....Keyser.
Wartenberg, Charles Edward.....LL.B.....Allegheny, Pa.
Weaver, Frank.....LL.B. .....Morgantown.
White, Robert.....LL.B. .....Romney.
Whitman, James Greene.....LL.B. .....Logan.
Wiles, Lillian Ruth.....LL.B. .....Morgantown.
Willis, Dennis Martin.....LL.B. .....Bridgeport.
Willis, William Curtice.....LL.B. .....Boothesville.

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The School of Music.

Vocal.

Aldrich, Mary Lannia.....Morgantown.
Armstrong, Robert Allen.....Morgantown.
Atkinson, George Wesley, Jr.....Charleston.
Berry, Nitia Feather.....Bruceton.
Brown, Alexandria Gay.....Morgantown.
Gilbert, Sue Carskadon.....Piedmont.
Hayes, Mary Louise.....Morgantown.
Hayes, Thomas Wilfred.....Morgantown.
Hirschman, Mrs. Milton.....Morgantown.

Moorehead, Jessie John.....Morgantown.
Raymond, Josephine.....Morgantown.
Sharp, Margaret Ellinor.....New Martinsville.
West, Cecil Nalle.....Charleston.
—13

Piano.

Albright, Nellie Jane.....Kingwood.
Aldrich, Mary Lannia.....Morgantown.
Barbe, Clara Gould.....Parkersburg.
Brown, Alexandria Gay.....Morgantown.
Carr, Margaret Elizabeth.....Morgantown.
Casey, Clyde John.....Morgantown.
Davis, Bessie Belle.....Morgantown.
Fitch, Jessie Johnson.....Morgantown.
Gilbert, Sue Carskadon.....Piedmont.
Hayes, Flora Ray.....Morgantown.
Howe, Rosalie Boughner.....Morgantown.
Johnson, Laura Dale.....Morgantown.
Klein, Milton Bernhart.....Allegheny, Pa.
Lindsay, Mary Augusta.....Morgantown.
Martin, Grace.....Kingwood.
B.M., Virginia College for Young Ladies, 1894.
Morgan, Adelina Enrigueta.....Bogota, Colombia, S. A.
McGrew, Julia.....Morgantown.
Protzman, Blanche.....Morgantown.
Reynolds, Ethel Toy.....Morgantown.
Ross, Sophia Francis.....Morgantown.
Whitehill, Elizabeth Wilson.....Morgantown.
Wood, Blanche.....Morgantown.
—22

Violin.

Caples, Harry Leonard.....Morgantown.
Hagans, Elizabeth Ludington.....Morgantown.
Pierre, Beckie Entainette.....Morgantown.
—3

Guitar.

Stewart, James Vance.....Morgantown.
Wood, Ruth Cassandra.....Morgantown.
Caples, Harry Leonard.....Morgantown.
Wotring, Mary Adele.....Morgantown.
—4

Mandolin.

Fontenelle, Angele.....Morgantown.
Klein, Milton Bernhart.....Allegheny, Pa.
Midelburg, Charles.....Charleston.
Snyder, Fred W.....Lewisburg.
St. Clair, Frank John.....Morgantown.
—5.

Banjo.

Alexander, William Frank.....Mannington.
Chadwick, Samuel Grove, Jr.....Morgantown.
Laughlin, Benjamin Franklin.....Morgantown.
McCrum, Arlington Bliss.....Aurora.
—4.

Tuba.

Madera, Haymond Griggs.....Morgantown.
Cox, Laurence Morgan.....Morgantown.
—2.

Cornet.

Casey, Thomas Jeremiah.....Morgantown.
—1.

The Department of Drawing and Painting.

Atkeson, Mary Meek.....Buffalo.
Bailey, Gertrude.....Morgantown.
Barnes, Frank Raymond.....Morgantown.
Boyers, Netta Myrtle.....Morgantown.
Buchanan, Margaret.....Morgantown.
Chadwick, George Sturgiss.....Morgantown.
Chalfant, Estalee Martha.....Peora.
Dering, Grace Enzey.....Morgantown.
Douthat, Genevieve Lane.....Morgantown.
Dovener, William N.....Wheeling.
Egbert, Ella Elizabeth.....North Hector, N. Y.
Flournoy, Harry Lightfoote.....Charleston.
Gibson, William Herbert.....Tunnelton.
Gibson, Morrow Ross.....Valley Grove.
Hagans, Lily B.....Morgantown.
Hennen, Ray Vernon.....St. Cloud.
Hess, Carl Frederick.....Mt. Pleasant.
Hubbard, Beulah Brock.....Morgantown.
Ireland, Addie Rosalie.....Morgantown.
Jenkins, Opha Fleming.....Astor.
Johnson, Belle Wade.....Morgantown.
Johnson, Annie Ballon.....Morgantown.

Johnston, Thomas Brodie.....Oil City, Pa.
Kinkead, Robert Hazlett.....Fairmont.
Lang, Thomas Simeon.....Bridgeport.
McKinney, Odell Payne.....Fairmont.
Norris, Rebecca Elouise.....Glenville.
Randolph, Clyde.....Salem.
Shelby, Edward Frank.....Uniontown, Pa.
Six, William Louis.....Wadestown.
Sennett, Maude Savilla.....Morgantown.
Zevely, Harry John.....Wheeling.

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The Commercial School.

Anderson, George Edward.....Latrobe, Pa.
Annan, William Dent Roberdeau.....Newburg.
Atkeson, Thomas Zephaniah.....Buffalo.
Barnes, Frank Raymond.....Morgantown.
Bayha, George Edward.....Wheeling.
Bayles, George Harmon.....Easton.
Beall, Clarence Hough.....Morgantown.
Berry, William Henry.....Bruceton Mills.
Bircher, George Calvin.....Randall.
Blackshere, Harry.....Mannington.
Bready, Eugene.....Harper's Ferry.
Brown, Anna Floride.....Charlestown.
Boyd, George Frank.....Pennsville, Pa.
Burlingham, William.....Charleston.
Chadwick, Samuel Grove, Jr.....Morgantown.
Chancellor, Johnson Camdem.....Parkersburg.
Chapman, Frank A.....Holliday's Cove.
Charter, Lathrop Russell.....West Union.
Cobun, Alice.....Morgantown.
Cobun, John Marshall.....Morgantown.
Corbin, Frank Pickering.....Ellenboro.
Cochran, William Lynn.....St. Albans.
Cummins, John William.....Wheeling.
Denham, Charlie.....Carmichaels, Pa.
Dils, Sherman.....Parkersburg.
Dittmeyer, Walter Eugene.....Harper's Ferry.
Drane, Harry Kellar.....Piedmont.
Duff, Gordon G.....Parkers.
Fuller, John S.....East Riverside, Pa.
Elder, William Clarence.....Boothesville.
Finnell, Harry Wesley.....Morgantown.
Flournoy, Harry Lightfoote.....Charleston.

Gans, Robert A.....Morris Cross Roads, Pa.
Gawthrop, John Lowe.....Bridgeport.
Graham, Rutherford Hunter.....Hinton.
Gregg, John Morton.....Morgantown.
Heavener, Ralph Webster.....Buckhannon.
Henderson, Morris Garrison.....Wadestown.
Hennen, Ray Vernon.....St. Cloud.
Hereford, Will Delafield.....St. Albans.
Hess, Carrie Virginia.....Duke.
Hess, Carl Frederick.....Pt. Pleasant.
Horner, Benjamin Franklin.....Dayton.
Horner, Marion Sackett.....Dayton.
Houser, John George.....Romney.
Hundley, John Palmer.....Masontown.
Hutchinson, Frank David.....Keyser.
Jefferds, Joseph Crosby.....Charleston.
Kellam, Harry.....Hinton.
Kelso, Arthur Isaac.....Mt. Lake Park, Md.
Kemp, Elmer Bernard.....Bolivar.
Kenney, Amos E.....Arnoldsburg.
Kessell, James Everett.....Given.
Killingsworth, Richard Huffman.....Truebada.
Kilmer, Wade Culler.....Martinsburg.
Klein, Milton Bernhart.....Allegheny, Pa.
Lilly, William Riley.....Flat Top.
McCune, Will McCausland.....Dawson, Pa.
McElroy, Iva Edna.....Flickersville.
McMechen, David Carroll.....Washington.
Meek, John Henry.....Preston.
Miller, Archie Hamilton.....Morgantown.
Montgomery, Edward.....Mannington.
Morris, Pressley Dallas.....Wileyville.
Morrison, Harry Clay.....Wilsonburg.
Musgrave, George Curtis.....Point Pleasant.
Neely, Matthew Mansfield.....Smithton.
Newlon, Granville Dearing.....Buckhannon.
Noble, Joseph Glass.....Homestead, Pa.
Ogden, Lloyd Wayman.....Salem.
Osborne, Cuthbert Alexander.....Clarksburg.
Parsons, Franklin Frederick.....Point Pleasant.
Peters, Francis Marion.....Dunlow.
Phillips, Charles Walter.....Morgantown.
Poteet, Lucian Emrow.....Red Star.
Powell, Harvey Clarence.....Lima.
Price, William Chalfant.....Scrafford.

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Provence, Media Sophia.....Morgantown.
Provence, Millicent.....Morgantown.
Quimby, Charles Henry, Jr.....Wheeling.
Read, Robert Gwynn.....Elkins.
Reynolds, Edward Bunker.....Keyser.
Rice, Percy Douglas.....Worth.
Rice, Cecil Glenwood.....Fairmont.
Shaw, J. Claude.....Guseman.
Shelby, Edward Frank.....Uniontown, Pa.
Shloss, Sidney.....Morgantown.
Smith, James Henry.....Morgantown.
Smith, Walter Oriville.....Morgantown.
Snyder, Fred W.....Lewisburg.
South, Winifred Orienta.....Morgantown.
Sprinkle, Pergolia Orien.....Martinsburg.
Summers, Porter.....Glenville.
Sutton, Oley Ord.....Martinsburg.
Sutton, Felix Oren.....Martinsburg.
Swint, Charles Patrick.....Weston.
Tabler, Burkhart Lee.....Tablers.
Titus, Myers N.....Greensboro, Pa.
Utt, Oranna Ellen.....Morgantown.
Ward, Harold Mackrille.....Charleston.
Watson, Herbert Eugene.....Parkersburg.
Welch, Richard Adams.....Keyser.
Wells, Thornton Pickenpaugh.....Morgantown.
West, Cecil Nalle.....Charleston.
Whaley, James Canon.....Uniontown, Pa.
Wiles, George Rogers Clarke.....Spaulding.
Willis, William Curtice.....Boothesville.
Williams, Charles Willis.....Blacksville.
Wood, George Washington.....Morgantown.

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The Preparatory Schools.

I. The Preparatory School at Morgantown.

Third Year Students.

Alexander, Clyde.....Morgantown.
Alexander, William Frank.....Mannington.
Bailey, Bruce.....Tyrconnell.
Brooke, Charles Frederick Tucker.....Morgantown.

Bowman, Frank Llewellyn.....Masontown.
Buchanan, Joseph Kerr.....Morgantown.
Bumgarner, Frank Osgood.....Millsboro, Pa.
Corbin, Frank Pickering.....Ellenboro.
Dille, Elisha Merrill.....Morgantown.
Hereford, Will Delafield.....St. Albans.
Herod, Francis Clyde.....Morgantown.
Hess, Carl Frederick, Jr.....Point Pleasant.
Hoover, Jay Frank.....Birch River.
Horner, Benjamin Franklin.....Dayton.
Hutton, Ernest.....Huttonsville.
Izon, Alfred.....Pittsburg, Pa.
Kysor, Walter.....Pt. Marion, Pa.
Lively, Henry Shaw.....Weston.
Lucas, Arthur Mapel.....Morgantown.
McGregor, Frank Herbert.....Cairo.
Price, William Chalfant.....Scrafford.
Rogers, Ralph.....Morgantown.
Sanders, Harry.....Maidsville.
Sheerin, George.....Morgantown.
Shloss, Sidney.....Morgantown.
Shriver, Ross Chalfant.....Wadestown.
Spragg, John Worth.....Wadestown.
Steele, Harry George.....Keystone.

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Second Year Students.

Bayles, George Harmon.....Easton.
Burt, Arch Merritt.....Mannington.
Bowman, Thomas Bradford.....Valley Furnace.
Cain, Francis Marion.....Arnettsville.
Capito, Henry.....Charleston.
Carder, Jacob Burdes.....Morgantown.
Chancellor, Johnson Camden.....Parkersburg.
Cobun, Miles Boyd.....Masontown.
Cochran, William Linn.....St. Albans.
Cohn, Jesse.....Parkersburg.
Cole, Emmert Luther.....Morgantown.
Cox, Boaz Baxter.....Morgantown.
Day, Clay.....Mouth-of-Seneca.
Finnell, Harry Wesley.....Morgantown.
Gans, Robert Altha.....Morris Cross Roads, Pa.
Halstead, Ada Mae.....Kessler's Cross Lanes.
Henderson, Morris Garrison.....Morgantown.
Hess, Homer Hoyt.....New Salem, Pa.

Second Year Students—Continued.

Ireland, Harlan Humbert.....Morgantown.
Kellam, Harry.....Hinton.
Kinkead, Robert Hazlett.....Fairmont.
Kunkel, James Harvey.....Morgantown.
Kunst, Frank Batson.....Pruntytown.
Largent, Robert Joseph.....Paw Paw.
Lazier, James Protzman.....Morgantown.
Loar, Robert Allison.....Valley Furnace.
Mayer, John Harry.....Ashland.
McBee, Claude.....Halleck.
McCune, Will McCausland.....Dawson, Pa.
McCutcheon, Alvaro Burke.....Zela.
McGlumphy, William Gibson.....Rocklick.
McIntosh, Charles Leon.....Ravenswood.
Morrison, Harry Clay.....Wilsonburg.
Osborne, Robert Linn.....Clarksburg.
Peck, Herbert Cromwell.....Philippi.
Porter, Robert Baird.....New Salem, Pa.
Pratt, James Ira.....Beech Grove.
Provence, Lida Ethel.....Morgantown.
Provence, Nannie Emilie.....Morgantown.
Rauch, Abraham.....Parkersburg.
Raymond, Wilbur Putnam.....Chicago, Ill.
Reynolds, Boyce Weston.....Morgantown.
Robinson, Robert Kitchen.....Shanghai.
Sangston, James Holmes.....McClellandstown, Pa.
Smith, Earl Harry.....Fairmont.
Shaw, John Claude.....Guseman.
Thomas, Seth.....Mason.
Thompson, David C.....Murphytown.
Wagner, Clinton Bryson.....Hebron.
Watson, Herbert Eugene.....Parkersburg.
Wyckoff, Ole Everett.....Tyrconnell.

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First Year Students.

Arensberg, Conrad Laurence.....Heistersburg, Pa.
Ashcraft, William Harrison.....Triune.
Atkeson, Karl Clark.....Buffalo.
Barnes, Frederick Nelson.....Morgantown.
Baumgardner, Frank Gilbert Haven.....Morgantown.
Bernard, Charles Philip.....Morgantown.
Bowman, William B.....Rowlesburg.
Boyers, Charles Forrest.....Randall.
Bready, Eugene.....Harper's Ferry.

Buchanan, Margaret.....Morgantown.
Buskirk, Joseph Chilton.....Logan.
Campbell, James Garfield.....Sand Hill.
Campbell, William Benton.....Sand Hill.
Capehart, Carl Arnett.....Huntington.
Carroll, Robert Milton.....Uniontown, Pa.
Casey, Clyde John.....Morgantown.
Casey, Thomas Jeremiah.....Morgantown.
Clark, John William.....Morgantown.
Cobun, Alice.....Morgantown.
Compton, Bertha Ellen.....Mt. Morris, Pa.
Cummins, John William.....Wheeling.
Darnell, Aaron James.....Lewisburg.
Darnell, Guy Winters.....Lewisburg.
Davis, Madge Belle.....Morgantown.
Davis, Willis Clifford.....Etam.
Dawson, Edward Bruce.....Wilsonburg.
Deusenberry, Iona May.....Morgantown.
Douthat, Dana Glenn.....Morgantown.
Douthat, Robert Marvin.....Morgantown.
Duty, Henry Price.....Pennsboro.
Finnell, Virgil Carl.....Morgantown.
Fogle, Homer Bruce.....Mannington.
Freeman, James Albert.....Eckman.
Fullerton, George Sherman.....Fairview.
Fuller, John S.....East Riverside, Pa.
Gantz, Oscar Henry.....Morgantown.
Gantz, William Franklin.....Morgantown.
Graham, Rutherford Hunter.....Hinton.
Hatch, Blanchard Ross Foster.....Dravosburg, Pa.
Hatfield, Wayne.....Logan.
Hawk, Abraham Rogers.....Morgantown.
Heermans, Charles Reeder.....Elizabeth.
Heermans, Martha Elizabeth.....Elizabeth.
Hendershot, Joseph Bentley.....Parkersburg.
Himmler, Charles Frederick.....Morgantown.
Hull, Abigail Mary.....Morgantown.
Ireland, Mary Alice.....Duke.
Jones, Elbert.....Rivesville.
Judy, Lafayette.....Upper Tract.
Kaufmann, Edward John.....Pittsburg, Pa.
Kemp, Elmer Bernard.....Bolivar.
Kessell, James Everett.....Given.
Kime, Loran Garfield.....Carey, Ohio.
Klein, Milton Bernhardt.....Allegheny, Pa.

Koblegard, Robert Rankin.....Clarksburg.
Koontz, James Andrew.....Morgantown.
Kunst, Albert Rizer.....Pruntytown.
Lantz, James.....Cameron.
Lea, Ernest Durfey.....Huntington.
Levine, Harry.....Morgantown.
Lewis, John Clyde.....Grafton.
Loughry, Walton Hays.....Hannahsville.
Miller, Dana Paul.....Morgantown.
Moore, Solomon Granville.....Belington.
Moore, Harold Clinton.....Sistersville.
Morton, Jennings Jeremiah.....Lizemore's.
Mouser, Charles Cabel.....Newburg.
Neel, Isa Maud.....Pullman.
Noble, Joseph Glass.....Homestead, Pa.
Ogden, Lloyd Wayman.....Salem.
Peck, MWood Crim.....Philippi.
Rittenhouse, Brantley.....Wilsonburg.
Rosenmerkel, John Cleveland.....Morgantown.
Schad, Frederick Leonard.....Benwood.
Schad, Oscar Frederick.....Benwood.
Scherr, Arnold August.....Eglon.
Shaw, William Roy.....Terra Alta.
Shay, John Wesley.....Newburg.
Sheets, Cecil Ezra.....Alice.
Shenck, Edward.....Morgantown.
Showacre, William Russell.....Moundsville.
Skinner, James Forgan, Jr.....Morgantown.
Skinner, George Thompson.....Morgantown.
Smith, James Henry.....Morgantown.
Smith, Walter Oriville.....Morgantown.
Spadaccio, Ninck.....Naples, Italy.
Stanley, Okey Lesley.....Palatine.
Stanton, Robert.....Morgantown.
St. Clair, Frank Blaine.....Stewartstown.
Stenger, Anthony Nichols.....Morgantown.
Sutton, Oley Ord.....Martinsburg.
Sutton, Felix Oren.....Martinsburg.
Swisher, Scott Neal, Jr.....Parsons.
Tapp, Elizabeth Louise.....Morgantown.
Taylor, Alfred Charles.....Medley.
Thomson, James Keith.....Parkersburg.
Thornburg, Joseph Walter.....Dunlow.
Van Gilder, Lena Gertrude.....Morgantown.
Varner, Winfred Wycliffe.....Stewartstown.

Walters, Orval Lewis.....Masontown, Pa.
Wells, Thornton Pickenpaugh.....Morgantown.
Wenzell, Richard Orlando.....Mt. Oliver, Pa.
Werner, Sylvia Judith.....Eglon.
Whaley, Richard Bowie.....Uniontown, Pa.
Wharton, Laura.....Morgantown.
Wong, Hang Guey.....Kawong Tung, China.
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II. The Preparatory School at Montgomery.

Allen, Jeanet A.....Montgomery.
Bartlam, Charles.....Montgomery.
Bennett, Edward C.....Montgomery.
Bieme, Katie M.....Roe.
Brown, Jennie.....Montgomery.
Carlin, Mattie.....Montgomery.
Champe, Nile G.....Montgomery.
Chapman, Mrs. Parke.....Montgomery.
Cohen, Lena F.....Montgomery.
Crusenberry, Annie B.....Monarch.
Custer, Bertha W.....Montgomery.
Cutts, Hattie.....Montgomery.
Daniel, Annie.....Cotton Hill.
Davin, Florence E.....Montgomery.
Dunbar, Benjamin.....Montgomery.
Dwyer, Julia A. E.....Handley.
Dwyer, John L.....Handley.
Dyer, Nora E.....Handley.
Dyer, Charles T.....Handley.
Edwards, Lillie M.....Montgomery.
Embleton, Edith.....Cannelton.
Evans, Beatrice L.....Montgomery.
Evans, Lee.....Montgomery.
Fish, John.....Montgomery.
Fish, Edith.....Montgomery.
Frazier, Henderson V.....Dego.
Gooch, Lillian H.....Montgomery.
Hamilton, Maggie.....Cannelton.
Hamilton, Mae.....Cannelton.
Huddleston, Lula M.....Roe.
Johnson, Anna A.....East Bank.
Johnson, Mary.....Mt. Carbon.
Johnson, Jacob S.....Mt. Carbon.
Johnson, T. Lyle.....Dego.
Kelly, Helen.....Crescent.

Kendall, Allie E.....Handley.
Kinney, Katie.....Montgomery.
Kirkwood, Nola.....Montgomery.
Leonard, Charles B.....Roe.
Leonard, Joseph K.....Roe.
Lloyd, Goldie.....Eagle.
Love, Samuel.....Montgomery.
Lynton, Amy T.....Handley.
Moore, Myra.....Montgomery.
Morrison, William.....Montgomery.
Newby, A. Garfield.....Cannelton.
Neylan, Mary V.....Shrewsbury.
Noble, William L.....Roe.
Noble, Kersey N.....Roe.
O'Brine, Alice E.....Montgomery.
Payne, Pearl L.....Montgomery.
Payne, Lelia A.....Montgomery.
Pense, Silas.....Stock Yards.
Pinkney, Mary.....Montgomery.
Porter, Ella M.....Montgomery.
Richards, Arthur.....Montgomery.
Ripley, Julia P.....Montgomery.
Robison, Lizzie M.....Montgomery.
Robson, Thomas.....Handley.
Robson, Hattie B.....Handley.
Shaffer, Philip Anderson.....Martinsburg.
Smith, Bessie.....Montgomery.
Smith, Myrtle.....Montgomery.
Stafford, William.....Handley.
Stanley, Lillian L.....Montgomery.
Taylor, Rosia.....Cannelton.
Taylor, Ella.....Cannelton.
Toney, Ollie M.....Mt. Carbon.
Toney, Minnie.....Mt. Carbon.
Thompson, Anna.....Handley.
Walker, Lola P.....Handley.
Walker, R. Bruce.....Crescent.
Wood, Fred G.....Dego.

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The Department of Instruction by Correspondence.

Adams, J. I.....Conings.
Arnick, W. A.....Cliff Top.
Arnold, Walter Samuel.....Hartmonsville.
Banks, Morgan J.....Hartford.

Beard, T. L.....Millpoint.
Ball, E. S.....Peniel.
Bartlett, Altha.....Shinnston.
Bean, S. W.....Dorr.
Bennett, Arthur F.....Meadowville.
Bennett, Floyd.....Kirt.
Bent, A. M.....Conings.
Bibbee, Charles E.....Emma.
Blackwood, Charles K.....Lock Seven.
Brown, C. C.....Charleston.
Brown, Irvin Carson.....Pleasant Valley.
Brown, M. V.....Buffalo.
Buckbee, Anna.....California, Pa.
Bunch, T. A.....Parkersburg.
Burns, Thomas L.....Catawba.
Byrnside, M. A.....Burdette.
Carmichael, Alonzo.....LeRoy.
Clark, Allen.....Bee.
Click, Andy.....School House.
Coberly, L. W.....Corcoran.
Conley, Emma.....Fond du Lac, Wis.
Conley, J. F.....Zena.
Coulter, O. E.....Lindside.
Crozier, J. E.....Gapmills.
Cunningham, C. W.....Clarksburg.
Cunningham, George.....Bulltown.
Davis, E. L.....New Milton.
Deavor, William T. S.....Annapolis, Md.
Dodd, S. L.....Little Georgetown.
Easley, David Milton.....Bluefield.
Ebers, Charles H.....Benwood.
Edwards, Elizabeth.....Hazel Green, Wis.
Emsley, J. W.....Shannon.
Enlow, James Cleetins.....West Union.
Flesher, C. W.....Elkins.
Flynn, Edwin H.....Spencer.
Fortney, Lorain.....Athens.
Garvin, John Buchanan.....Wheeling.
Goodhue, Willis E.....Silver Creek, N. Y.
Gutherie, D. C.....Parkersburg.
Haney, Oliver C.....Halls Mills.
Hansford, O. T.....Mount Clare.
Harris, Arthur J.....Kirt.
Heck, William.....Greencastle.
Hiller, John.....Ona.

Himmler, Charles Frederick.....Morgantown.
Holroyd, S. R.....Athens.
Hobbs, Virginia.....East Liverpool, Ohio.
Honaker, T. J.....Marshes.
Hume, T. C.....Williamsburg.
Hunt, Florence Adele.....Aurora, Ill.
Hylburt, J. W.....Millard.
Legg, A. J.....Albion.
Legg, G. M.....Albion.
Lewellyn, Elizabeth V.....California, Pa.
Louther, P. M.....Truebada.
Martin, H. M.....Albright.
McComb, Fred.....Sylvam.
McGinnis, T. J.....Clear Creek.
McGlumphy, Walter A.....Rock Lick.
McKitrick, May.....Viroqua, Wis.
McNeill, Samuel H.....Mercer's Bottom.
Meredith, John E.....Berea.
Michael, N. S.....Tunnelton.
Mitchell, Frank A.....Ceredo.
Mitchill, J. M.....Chapmansville.
Moore, Jonathan M.....Newton.
Mulford, Charles W.....Lynbrook.
Naylor, Leonard.....Lockhart.
Nelson, Martin E.....Halleck.
Newlin, Alexander Z.....McKeesport, Pa.
Pardue, S. W.....Chapmansville.
Perry, D. R.....Malden.
Peters, Lewis.....Buffalo.
Phillips, W. S.....Rock Lick.
Pierce, Carleton C.....Rowlesburg.
Posten, Frank.....Sylvam.
Poyle, J. M.....Bannen.
Pickett, Lawrence Ansley.....Barracksville.
Richmond, Simon P.....New Richmond.
Ridenour, Dora.....Clarksburg.
Riffle, J. W.....Old Town.
Ripley, William Ammon.....Huntington.
Roach, J. P.....LeRoy.
Ross, E. Lodge.....West Grafton.
Ross, James M.....Canton.
Rosier, Joseph.....Fairmont.
Ruebhausen, Julia E.....Watertown, Wis.
Rymer, W. W.....Conings.
Rymer, Roy.....Conings.

Department of Instruction by Correspondence—Continued.

Sanders, Mary Virginia.....Randall.
Scott, D. T.....Bruceton Mills.
Shafer, Joseph P.....Kettle.
Shaffer, F. O.....Rohr.
Shreve, Nelson J.....Valley Head.
Shinn, B. W.....Enterprise.
Simmons, Homer.....Wheeling.
Skinner, James Marshall.....Sistersville.
Smith, Charles Sheldon.....Uniontown, Pa.
Smith, Lee.....Uniontown, Pa.
Smith, J. H.....Assurance.
Smith, James.....Shannon.
Smith, S. G.....Stevens.
Smith, F. P.....Greenwood.
Strayer, Charles.....Martinsburg.
Strong, Henry Gordon.....Berkeley Springs.
Strosnider, Homer.....Center Point.
Sullivan, D. M.....Charleston.
Summers, Lewis, Jr.....Charleston.
Strayhorn, Andrew M.....Churchtown, Pa.
Swisher, C. F.....Rockford.
Tarner, C. S.....New Martinsville.
Taylor, Milton H.....Masontown.
Thompson, Cora.....Beloit, Wis.
Thurston, M. T.....Spring Hill.
von Briesen, Hattie.....Columbus, Wis.
Waddell, Lynne.....Morgantown.
Wallace, D. F.....Sylvam.
Wallace, J. W.....Sylvam.
Wettach, Charles D.....Allegheny, Pa.
Whetsell, Horatio Seymour.....Aurora.
Whitehead, William G.....South Side.
Wilson, Milo.....Blaine.
Woodson, Elmon Edwin.....California, Pa.

—128

Summary of Students.

Graduate Students	19
College of Arts and Sciences:	
Seniors	23
Juniors	19
Sophomores	33
Freshmen	77
Premedical students	28
Special students	40
	220

Summary of Students—Continued.

Total number of undergraduates in College of Arts and Sciences		220
College of Engineering and Mechanic Arts:		
Seniors	6	
Juniors	12	
Sophomores	7	
Freshmen	19	
Total number of undergraduates in College of Engineering and Mechanic Arts		44
College of Agriculture:		
Graduate student	1	
Senior	1	
Freshmen	3	
Special students	5	
Total number of students in College of Agriculture		10
College of Law:		
Graduate student	1	
Seniors	21	
Juniors	71	
Total number of students in College of Law		93
School of Music:		
Vocal	13	
Piano	22	
Violin	3	
Guitar	4	
Mandolin	5	
Banjo	4	
Tuba	2	
Cornet	1	
Total enrollment in School of Music		54
School of Fine Arts		32
Commercial School		109
The Preparatory Schools:		
The Preparatory School at Morgantown:		
Third year	28	
Second year	51	
First year	106	
Total enrollment in Preparatory School at Morgantown		184

Summary of Students—Continued.

Total enrollment of students at Morgantown	747
Number counted more than once	103
Total number of students at Morgantown	644
The Preparatory School at Montgomery	73
Total number of students receiving instruction in residence	717
Students receiving instruction from Morgantown by correspondence	128
Total number of students receiving instruction	845

Summary of Students by States and Countries.

Resident Students at Morgantown.

West Virginia	565
Pennsylvania	66
Maryland	3
New York	2
Ohio	2
Illinois	2
Kentucky	1
Italy	1
China	1
South America	1
Total	644

Correspondence Students.

West Virginia	111
Pennsylvania	7
Wisconsin	6
Maryland	1
New York	1
Ohio	1
Illinois	1
Total	128

Degrees Conferred 1897.

Degrees in Course.

Bachelor of Arts.

Tillie Ruth Cope Bernhardt,
Earle Amos Brooks,
Harry Anthony Eaton,
Lloyd Lowndes Friend,
William Thomas Ice,
John Gottlieb Knutti,
Josephine M. Kunkel,
Winifred Orienta South,
William Russell Standiford,
Howard L. Swisher,
Lida Van Gilder.

Bachelor of Science.

Frederick Moore,
Ethel Toy Reynolds.

Bachelor of Science in Civil Engineering.

James Morgan Orr,
Lewis James Robb.

Bachelor of Science in Mechanical Engineering.

Henry M. Leps,
Bennett S. White.

Mechanical Engineer.

Clement R. Jones.

Bachelor of Arts in Law.

Clarence Franklin Jolliff,
Armistead Mead Prichard,
Harman C. Staggers,
W. Frank Stout,
Lee Roy Taylor.

Bachelor of Laws.

Homer Adams,
P. G. Allen,
John Brannon Bennett,
Robert E. Bills,
John I. Blayney,
J. Hugh Bowers,
Charles R. Burdett,
N. Winnet Campbell,
Louis N. Corbett,
Cary C. Hines,
Edwin O. Keifer,
Amos Ernest Kenney,
George Henry Augustus Kunst,
Claude W. Maxwell,
Lloyd McIntire,
Ephraim F. Morgan,
C. Erwin Nethkin,
Seamon F. Northrup,

Bachelor of Laws—Continued.

Charles W. Cramer,
W. Austin Davis,
John William Dawson,
Thomas Ray Dille,
Herbert E. Dunlap,
A. G. Fickieson,
Clare W. Harding,
Charles Hugo Harrison,
Taney Harrison,
Elias Brumbaugh Hartle,
Abijah Hayes,
Ralph Webster Heavener,
Philip S. Heck,
Marshall W. Ogden,
Benjamin F. Rice, Jr.,
George Peabody Shirley,
Norval Speelman,
Isaac M. Underwood,
Deco Van Horn,
George S. Wallace,
J. Blackburn Ware,
Robert D. Warman,
Ross Alfred Watts,
John Wehrle,
Jefferson Wylie Yoho,
Fielding Harris Yost.

Honorary Degrees.

Civil Engineer.

Professor William A. Pratt, of Delaware State College.

Master of Arts.

Waitman Barbe.

Doctor of Laws.

Hon. William L. Wilson, President of Washington and Lee University.

Doctor of Civil Law.

Hon. George W. Atkinson, Governor of West Virginia.

ALUMNI.

Officers of the Alumni Association.

1897-98.

HON. ALSTON GORDON DAYTON, Philippi, W. Va., President.

PROF. ROBERT ALLEN ARMSTRONG, Morgantown, W. Va., Secretary and Treasurer.

Graduates.

1870.

Marmaduke H. Dent, A.B.; A.M., 1873; Judge of Supreme Court of Appeals, Grafton, W. Va.

1871.

O. H. Dille, B.S.; M.S., 1874; Farmer, Morgantown, W. Va.
W. E. Jolliffe, A.B.; A.M., 1874; business, Morgantown, W. Va.

1872.

John H. Drabell, A.B.; A.M., 1875; Lawyer, Des Moines, Iowa.
Alan Elza McLane, A.B.; A.M., 1875; Merchant, Steubenville, Ohio.
B. W. Smith, A.B.; A.M., 1875; Lawyer, Minneapolis, Minn.
I. C. White, A.B.; A.M., 1875; Ph.D., University of Arkansas, 1884; State Geologist of West Virginia, and Treasurer of the Geological Society of America, Morgantown, W. Va.

1873.

Charles Montgomery Babb, A.B.; A.M., 1876; Farmer, Falls, W. Va.
Daniel Webster Border, A.B.; A.M., 1876; M.D., Bellevue Hospital Medical College, 1876; Physician and Surgeon, Kearneysville, W. Va.
W. L. Boughner, B.S.; M.S., 1876; Farmer, Palatine, W. Va.
James F. Brown, A.B.; A.M., 1876; Lawyer, and Regent of West Virginia University, Charleston, W. Va.
E. T. Bullock, A.B.; A.M., 1876; deceased; Parkersburg, W. Va.
John T. Harris, B.S.; M.S., 1876; Clerk of West Virginia State Senate; Stenographer, Parkersburg, W. Va.
George P. Lynch, B.S.; M.S., 1876; Lawyer, Atcheson, Kan.
T. B. McClure, B.S.; M.S., 1876; Principal Oak View Academy, Wayne C. H., W. Va.

Thomas H. Price, B.S.; M.S., 1876; M.D.; Physician, Bridesport, Pa.

Daniel Boardman Purinton, A.B.; A.M., 1876; LL.D., Denison University, 1887; Ph.D., University of Nashville, 1892; President Denison University, Granville, Ohio.

M. L. Temple, A.B.; A.M., 1876; Lawyer, Osceola, Iowa.

James Talman Waters, A.B.; A.M., 1876; LL.B., Columbia University, 1876; Attorney-at-Law, and Deputy U. S. Circuit Clerk, Charleston, W. Va.

1874.

R. V. Chadwick, A.B.; A.M., 1877; deceased.

Rev. J. W. S. Dean, A.B.; A.M., 1877; S.T.B., Ph.D., D.D.; Pastor M. E. Church, Wymore, Neb.

Rev. William H. Howell, A.B.; A.M., 1877; Pastor Presbyterian Church, Marysville, Kan.

Thomas Perry Jacobs, A.B.; A.M., 1877; Attorney-at-Law, New Martinsville, W. Va.

Charles Wesley Lynch, A.B., 1874; A.M., West Virginia University; Attorney-at-Law, Clarksburg, W. Va.

Rev. E. E. Moran, A.B.; A.M., 1877; Graduate Princeton Theological Seminary, 1877; Pastor Presbyterian Church, Ironton, Ohio.

Frank Woods, A.B.; A.M., 1877; Lawyer, 812 Equitable Building, Baltimore, Md.

1875.

Samuel Shugart Adams, A B.; A.M., 1878; Georgetown University, 1879; Physician, 1 Dupont Circle, Washington, D. C.

Robert Henry Dolliver, A.B.; A.M., 1878; B.D.; Pastor M. E. Church, Paw Paw, Ill.

J. P. Dolliver, A.B.; A.M., 1878; Congressman from Tenth District, Fort Dodge, Iowa.

Franklin Augustus Golden, B.S., 1875; Superintendent Schools and Principal High School, Marshfield, Ore.

James V. Martin, A.B.; A.M., 1878; deceased.

James J. Peterson, A.B.; A.M., 1878; Editor and Publisher, Charleston, W. Va.

A. L. Purinton, A.B.; A.M., 1878; Ph.D.; M.D., Professor of Chemistry, Normal College, Nashville, Tenn.

1876.

John C. Anderson, B.S.; M.S., 1879; business, Los Angeles, Cal.

Luke H. Frasher, A.B.; A.M., 1879; Lawyer, Uniontown, Pa.

H. D. Hubbard, B.S.; M.S., 1879; deceased.

W. O. Ison, A.B.; A.M., 1879; Treasury Department, Washington, D. C.

Howard Mason Kemp, B.S.; M.S., 1879; M.D., University of Maryland, 1881; Physician, Alexander, W. Va.

George Summers Laidley, B.S.; M.S., 1897; Superintendent of City Schools, Charleston, W. Va.

James H. Nash, B.S.; M.S., 1879; Lawyer, Charleston, W. Va.

Daniel Eliot Wetzel, A.B.; A.M., 1879; M.D., Louisville Medical College, 1879; Physician, Jacobson Building, Denver, Col.

1877.

William Gay Brown, A.B.; A.M., 1880; Lawyer, Kingwood, W. Va.

Clarence Brown Dille, A.B.; A.M., 1880; LL.B., *ibid.*, 1887; Lawyer, Morgantown, W. Va.

Joseph Henderson Hawthorne, A.B.; A.M., 1880; City Judge; Attorney-at-Law, 2010 Penn Street, Kansas City, Mo.

Thomas M. Hood, A.B.; A.M., 1880; M.D.; Physician, Weston, W. Va.

D. R. Rogers, A.B.; A.M., 1880; M.D.; Physician, Ragan, Neb.

E. C. Smith, B.S.; M.S., 1880; Bank Cashier and Lawyer, Ravenswood, W. Va.

Henry J. Snively, A.B.; A.M., 1880; B.L., University of Virginia, 1879; Lawyer, and Member of State Board of Control, North Yakima, Washington.

John Lorentz Steele, A.B.; A.M., 1880; Washington Correspondent "New York Journal," 431 Tenth Street N. W., Washington, D. C.

James Scott Stewart, B.S.; M.S., 1880; Professor Mathematics, West Virginia University, Morgantown, W. Va.

1878.

A. F. Courtney, B.S.; M.S., 1881; deceased.

Alston Gordon Dayton, A.B.; A.M., 1881; Member of Congress, Second District, Philippi, W. Va.

James McMillen Lee, A.B.; A.M., 1881; Principal of Lee Military Academy; Member of Board of Regents of West Virginia University, Lewisburg, W. Va.

Rev. E. J. Marsh, A.B.; A.M., 1881; Professor in University of Southern California, Los Angeles, Cal.

B. S. Morgan, A.B.; A.M., 1881; ex-State Superintendent of Schools; Lawyer, Charleston, W. Va.

Daniel Rich, A.B.; A.M., 1881; LL.B., University of Virginia, 1881; Lawyer, South Bend, Ind.

1879.

George D. Purinton, A.B.; A.M., 1882; Ph.D.; M.D.; deceased.

W. A. Rogers, A.B.; A.M., 1882; Lawyer, Cincinnati, Ohio.

Spencer S. Wade, B.S.; M.S., 1882; M.D., Jefferson Medical College, 1884; Physician, Morgantown, W. Va.

1880.

Charles Edwin Grafton, B.S., 1880; M.S., West Virginia University, 1883; Member Am. Soc. C. E., 1897; Assistant Engineer Illinois Central Railroad; Illinois Central Station, Twelfth Street, Chicago, Ill.

B. L. Keenan, B.S.; M.S., 1883; Lawyer, Wichita, Kan.

Rev. J. N. Marsh, A.B.; A.M., 1883; Professor in Southern University of California, Los Angeles, Cal.

George A. Pearre, A.B.; A.M., 1883; ex-State Senator; Prosecuting Attorney; Attorney-at-Law, Cumberland, Md.

Alonzo Allison Waters, A.B.; A.M., 1883; Professor of Biology in Illinois Wesleyan University, Bloomington, Ill.

1881.

Thomas Edward Hodges, A.B.; A.M., 1884; Professor of Physics in West Virginia University; Member of State Board of School Examiners, Morgantown, W. Va.

William M. Hyland, A.B.; A.M., 1884; Supreme Court Reporter, Osceola, Iowa.

H. N. Ogden, A.B.; A.M., 1884; Lit.D.; Lawyer, Chicago, Ill.

1882.

T. R. Boyd, A.B.; A.M., 1885; deceased.

Z. K. Brown, A.B.; A.M., 1885; M.D.; Physician, Virginia City, Minn.

D. H. Courtney, A.B.; A.M., 1885; M.D.; Physician, Morgantown, W. Va.

A. L. Cox, B.S.; M.S., 1885; Teacher, Sweetbrier, Texas.

Theophilus E. Hodges, A.B.; A.M., 1885; Farmer, Buckhannon, W. Va.

Rev. E. D. Jeffries, B.S.; M.S., 1885; Pastor Presbyterian Church, Alderson, W. Va.

J. H. Lawhead, B.S.; M.S., 1885; M D.; Physician, West Newton, Pa.

George Calvert Lewis, A.B.; A.M., 1885; Lawyer, 440 Diamond Street, Pittsburg, Pa.

James H. Stewart, A.B.; A.M., 1885; LL.B.; ex-State Senator; Director Experiment Station, Morgantown, W. Va.

1883.

George Coleman Baker, A.B.; A.M., 1886; LL.B., 1886; Lawyer, Morgantown, W. Va.

William Thomas Bland, B.S.; M.S., 1886; LL.B.; District Judge; Attorney-at-Law, Atchison, Kan.

L. M. Boyers, A.B.; A.M., 1886; LL.B.; deceased.

Benjamin Beuhring Brown, A.B.; A.M., 1886; B.L., University of Virginia, 1885; LL.B.; Lawyer; Real Estate Dealer, Denver, Col.

Samuel B. Brown, A.B.; A.M., 1886; Professor of Geology, West Virginia University; Fellow, Amer. Acad. Soc. and Pol. Sci., Morgantown, W. Va.

Jacob Frank Corke, A.B.; A.M., 1886; LL.B., 1884; Lawyer, Charleston, W. Va.

George Burman Foster, A.B.; A.M., 1886; Ph.D., Denison University, 1892; Professor of Systematic Theology, University of Chicago, Chicago, Ill.

Walter Hough, A.B.; A.M., 1886; Ph.D., 1894; Curator Department of Ethnology, Smithsonian Institution, Washington, D. C.

John Lindsay Johnston.

Isaac Grant Lazelle, A.B.; A.M., 1886; LL.B., 1884; Lawyer; Prosecuting Attorney Monongalia County, Morgantown, W. Va.

John Edgar Musgrave, A.B.; A.M., 1886; M.D., Sterling Medical College, 1886; Physician, Handley, W. Va.

S. P. Wells, Jr., B.S.; M.S., 1886; Manager for Babcock & Wilcox Company, 1215 Marquette Building, Chicago, Ill.

1884.

Waitman Barbe, B.S.; M.S., 1887; A.M., 1897; Member Board Regents State Normal Schools; Assistant to President West Virginia University, Morgantown, W. Va.

Robert Carter Berkeley, Jr., A.B., 1884; C.E., University of Virginia, 1886; A.M., West Virginia University, 1887; Civil Engineer, 1122 Monadnock Block, Chicago, Ill.

W. H. Michael, A.B.; A.M., 1887; Lawyer, New York City, N. Y.

H. L. Robinson, A.B.; A.M., 1887; LL.B.; Lawyer, Uniontown, Pa.

1885.

N. D. Adams, A.B.; A.M., 1888; deceased.

Robert Armstrong, B.S.; M.S., 1888; business, Point Pleasant, W. Va.

A. B. Rush, A.B.; A.M., 1888; President Southwest Baptist College, Bolivar, Mo.

Harvey Fleming, A.B.; A.M., 1888; Managing Editor Kansas City, Mo., "Journal," Kansas City, Mo.

John Davis Sweeney, B.S.; M.S., 1888; Wholesale and Retail Merchant, Athens, W. Va.

R. W. Tapp, A.B.; A.M., 1888; deceased.

1886.

Robert Allen Armstrong, A.B.; A.M., 1889; Vice-President, and Professor of English, West Virginia University; Fellow Amer. Acad. S. and P. Sci., Morgantown, W. Va.

W. N. Berkeley, A.B.; Ph.B.; M.D.; Physician, Clin. Asst. New York Polyclinic Med. School; Inspector of Schools for New York Board of Health, New York City, N. Y.

R. W. Dawson, A.B.; LL.B.; Lawyer, Uniontown, Pa.

Thomas R. Shepherd, A.B.; LL.B., 1888; Lawyer, Huntington, W. Va.

Rev. Nacy McGee Waters, A.B.; A.M., and S.T.B., Boston University, 1891; Pastor Emanuel M. E. Church, Evanston, Ill.

Z. F. Yost, B.S.; LL.B.; Lawyer; City Attorney, Pontiac, Ill.

John Edwin Charles, B.S., 1887; Attorney-at-Law, 119½ South High Street, Columbus, Ohio.

Edward Startzman Elliott, A.B.; LL.B.; Lawyer, 145 LaSalle Street, Chicago, Ill.

H. C. Ogden, A.B.; Editor "Evening News," Wheeling, W. Va.

Thomas G. Rector, B.S.; M.S., Johns Hopkins University; Signal Service, Condova, Argentine Republic.

Leroy Swann, B.S.; business, Connellsville, Pa.

1888.

James D. Cox, A.B.; M.D., ———.

Howard H. Emmert, B.S.; M.S., 1891; Lawyer, and Manager "Berkeley Democrat," Martinsburg, W. Va.

C. Hartmeyer, A.B.; LL.B.; Lawyer, Bruceton, W. Va.

Rev. H. H. Ryland, A.B.; Pastor Presbyterian Church, ———, Pa.

Frank Snyder, A.B.; Music Business, Uniontown, Pa.

David Lee Jamison, A.B.; LL.B.; Pastor First Baptist Church, Gas City, Ind.

1889.

B. C. Alderson, A.M.; Graduate Student, University of Chicago.

James Edgar Brown, B.S.; LL.B.; Lawyer, 1344 Unity Building, 79 Dearborn Street, Chicago, Ill.

James E. Dawson, A.B.; LL.B.; Lawyer, Uniontown, Pa.

Charles N. Finnell, A.B.; LL.B., 1893; Lawyer, Keyser, W. Va.

G. G. Heiner, A.B.; Lieutenant U. S. 4th Artillery, Washington, D. C.

Alfred Jarrett Hare, A.B.; Instructor in West Virginia University, Morgantown, W. Va.

J. A. Jackson, A.B.; Lawyer, Denver, Col.

Rev. Louis A. Lindemuth, A.B.; A.M., Princeton University, 1892; Pastor Presbyterian Church, Moosic, Pa.

Charles Rankin, B.S.; Civil Engineer, N. & W. R. R., Roanoke, Va.

Rev. John Lincoln Roemer, A.B.; A.M., Princeton University, 1892; Pastor Presbyterian Church, Cleveland, Ohio.

Rev. Herman G. Stoetzer, A.B.; A.M., Princeton University, 1892; Pastor Presbyterian Church, Moredale, Pa.

1890.

Harvey Brand, A.B.; Superintendent of City Schools, Morgantown, W. Va.

Frank Wells Clark, A.B.; LL.B., 1891; LL.B., Harvard, 1896; Lawyer, New Martinsville, W. Va.

Lawrence Jugurtha Corbly, A.B.; Principal State Normal School, Huntington, W. Va.

Bert. Holmes Hite, M.S.; Chemist Agricultural Experiment Station, Morgantown, W. Va.

W. F. Reynolds, A.M.; Instructor in Denison University, Granville, Ohio.

Frank C. Reynolds, A.B.; Attorney-at-Law; Prosecuting Attorney for Mineral County, Keyser, W. Va.

E. H. Vickers, A.M.; Graduate Student, Berlin University, Germany; Charlestown, W. Va.

Elmon Edwin Woodson, A.B., 1890; Th.G., Southern Baptist Theological Seminary, 1894; Pastor Baptist Church, California, Pa.

1891.

Rev. A. B. Cooper, A.B.; Pastor Presbyterian Church, Wenona, Illinois.

J. E. Davis, A.B.; LL.B.; 1310 Unity Building, Chicago, Ill.

C. R. Duvall, B.S.; Martinsburg, W. Va.

J. E. Galford, B.S.; LL.B.; Lawyer; Mayor City, Weston, W. Va.

U. S. G. Hayes, B.S.; Morgantown, W. Va.

C. McC. Lemley, C.E.; with Pencoyd Iron Works, Pencoyd, Pa.

T. D. Lynch, C.E.; Civil Engineer; Inspector of Steel for U. S. Navy, Chicago, Ill.

Hattie E. Lyon, A.B. (Mrs. Franklin Jewett); Fredonia, N. Y.

M. D. Post, A.B.; LL.B.; Lawyer, Wheeling, W. Va.

F. G. Ross, C.E.; Civil Engineer, Pittsburg, Pa.

James Russell Trotter, A.B.; A.B., Harvard, 1895; A.M., 1896; State Superintendent of Schools, Charleston, W. Va.

Charles Louis White, A.B.; Pastor Presbyterian Church, Clarksburg, W. Va.

P. C. White, A.B.; Pastor Presbyterian Church, Weston, W. Va.

DeWitt White, A.B.; Graduated Princeton Theological Seminary, 1894; Pastor Presbyterian Church, West Bend, Iowa.

1892.

George Milton Alexander, B.S.; LL.B.; Lawyer; Prosecuting Attorney for Marion County, Fairmont, W. Va.

Carroll Clair Coffman, B.S.; C.E.; Civil Engineer with South Penn Oil Company, Mannington, W. Va.

George Michael Ford, A.B.; LL.B., 1896; Principal Concord Normal School, Athens, W. Va.

Rev. John Wiley Francis, A.B.; Pastor Presbyterian Church, Richland Centre, Wis.

Ezra C. Garlow, B.S.; C.E.; Civil Engineer, Pittsburg, Pa.

John A. Grier, B.S.; M.D.; Physician, Sistersville, W. Va.

J. M. Hackney, A.B.; business, Morgantown, W. Va.

John Thomas Holbert, B.S.C.E.; Civil Engineer; Asst. Superintendent Navajo Irr. Survey, Ft. Defiance, Arizona Territory.

Rev. Hough Houston, A.B.; B.D.; Pastor M. E. Church, Pine Bush, N. Y.

Rev. Lin M. Jaco, A.B.; LL.B.; Teacher in Public Schools, Morgantown, W. Va.

Charles Benton Sisler, A.B.; Principal of Senatobia Schools, Senatobia, Miss.

Edmond Lee Zearley, B.S.C.E.; Civil Engineer, with McClure Coke Company, Scottdale, Pa.

1893.

William Alexander Burdette, A.B.; Principal of Schools, Sutton, W. Va.

William Jobes Eddy, A.B.; Pastor First Baptist Church, Fairmont, W. Va.

Lulu Garlow, A.B.; deceased.

Claude Webster Gore, A.B.; LL.B., 1896; Lawyer, Clarksburg, W. Va.

S. W. Graham, A B.; Tampa, Florida.

Lillian May Hackney, A.B.; Teacher in State Normal School, Huntington, W. Va.

Edward Thornton Hartman, A.B.; Manager Boston Office, Longmans Grain Company, 48 Pickaway Street, Boston, Mass.

William Charles Meyer, A.B.; LL.B., Yale; Lawyer; Prosecuting Attorney for Ohio County, 3735 Jacob Street, Wheeling, W. Va.

Sarah L. Norris, A.B. (Mrs. E. M. Showalter); Fairmont, W. Va.

Addison Hite Sheppard, A.B.; Lawyer, Spencer, W. Va.

A. B. Smith, A.B.; Uniontown, Pa.

Altha Warman, A.B.; Graduate Student, West Virginia University, Morgantown, W. Va.

Braxton Davenport, B.S.; Lawyer, 503 New England Building, Cleveland, Ohio.

F. M. Minshall, B.S.C.E.; Civil Engineer, New York City, N. Y.

Clarence Edwin Mayers, B.Agr.; Business Manager "Daily Expositor," Fairmont, W. Va.

1894.

Robert E. L. Allen, A.B.; LL.B., 1895; Lawyer, Morgantown, W. Va.

Macker Babb, B.S.; Farmer, Medley, W. Va.

John T. Cooper, B.S.; A.B., Harvard University, 1896; Lawyer, 1068 Avery Street, Parkersburg, W. Va.

G. Fred Dorsey, business, Pittsburg, Pa.

Joseph Lindsay Henderson, A.B.; Principal High School, Tyler, Texas.

John Wilbur Hughes, B.S.C.E., 1894; Civil Engineer, South Penn Oil Co., Mannington, W. Va.

Samuel Roy Jenkins, B.S.C.E., 1894; Civil Engineer, Grafton, W. Va.
James W. Johnson, B.Agr.
George W. Johnson, A.B.; LL.B.; Lawyer; City Attorney; Regent of State Normal Schools, Martinsburg, W. Va.
Clement R. Jones, B.S.C.E.; Instructor in Department of Mechanical Eng., West Virginia University, Morgantown, W. Va.
Charles Edward Krebs, B.S.C.E.; Civil and Mining Engineer, Kanawha Falls, W. Va.
John Nuzum, A.B.; First Assistant Glenville State Normal School, Glenville, W. Va.
James W. Paul, B.S.C.E.; Civil Engineer; Chief Mine Inspector of West Virginia, Charleston, W. Va.
Robert H. Ramsey, A.B.; M.D., Jefferson Medical College, 1897; Physician and Surgeon, 222 Pike Street, Clarksburg, W. Va.
Kemble White, A.B.; Merchant, Belton, W. Va.
John William Wiles, A.B.; Real Estate Dealer, Morgantown, W. Va.

1895.

W. B. Cutright, A.B.; Student in Columbia Law School, Washington, D. C.
Charles Edgar Carrigan, A.B.; Principal Central Benwood Schools, Benwood, W. Va.
T. L. Davies, A.B.; Principal Spencer Schools, Spencer, W. Va.
Michael Eugene Gorman, A.B.; Principal Upper Benwood Schools, Benwood, W. Va.
William Jackson Holden, A.B.; LL.B.; Principal Glenville State Normal School, Glenville, W. Va.
S. S. Jacob, Jr., A.B.; Assistant in West Liberty State Normal School, West Liberty, W. Va.
George Henry Augustus Kunst, A.B.; LL.B., 1897; Graduate Student West Virginia University, Pruntytown, W. Va.
U. S. G. Kendall, A.B.; Lawyer; Mayor of City, Fairmont, W. Va.
Thomas Monahan Lavelle, B.S.C.E.; Civil Engineer in charge of tracks and improvement of plant, Pencoyd Iron Works, Pencoyd, Pa., Wissahickon, Philadelphia, Pa.
Philip Brinton Martin, B.S.; Teacher, Kingwood, W. Va.
Russell Morris, B.S.C.E.; Assistant in Civil Engineering Department of West Virginia University, Morgantown, W. Va.
Jesse Boardman Protzman, A.B.; Teacher, Morgantown, W. Va.
C. N. Ridgeway, A.B.; Assistant Steward of Illinois Hospital, Hospital, Ill.
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1897.

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Lewis J. Robb, B.S.C.E.; New Cumberland, W. Va.
Haman C. Staggers, A.B.L.; Martinsburg.
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Lee Roy Taylor, A.B.L., 1897; Attorney-at-Law, Fairmont, W. Va.
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Law Graduates.

1879.

William R. Thompson, Attorney-at-Law, Huntington, W. Va.

1880.

Frank T. Haymond, Attorney-at-Law, Morgantown, W. Va.
Waitman T. Houston, Morgantown, W. Va.

1881.

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Samuel C. Kelley, deceased.

1882.

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1883.

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Melville Peck, Attorney-at-Law, Philippi, W. Va.
William Rich, Attorney-at-Law, South Bend, Ind.
John W. Wiltshire, deceased, Charlestown, W. Va.

1884.

Meigs Bland, Attorney-at-Law, Clarksburg, W. Va.
W. T. Bland, M.S.; District Judge; Attorney-at-Law, Atchison, Kan.
J. F. Cork, Attorney-at-Law, Charleston, W. Va.
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1885.

B. L. Keenan, A.M.; Attorney-at-Law, Wichita, Kan.
Frank Lively, Attorney-at-Law, Hinton, W. Va.
James H. Stewart, A.M.; ex-State Senator; Director Experiment Station, Morgantown, W. Va.
H. J. Sturgiss, Attorney-at-Law, Oklahoma Territory.

1886.

George C. Baker, A.B.; Attorney-at-Law, Morgantown, W. Va.
L. M. Boyers, A.M.; deceased.
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1887.

R. E. L. Blackwood, Attorney-at-Law, Lock Seven, W. Va.
R. W. Dawson, Attorney-at-Law, Uniontown, Pa.
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Edgar Parks Rucker, Attorney-General of West Virginia, Charleston, W. Va.
J. W. Smith, deceased, Maidsville, W. Va.
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1888.

Charles A. Clark, Attorney-at-Law; City Attorney, Hinton, W. Va.
Alexander Dupuy, Attorney-at-Law, Cameron, Cameron Parish, La.
Melville Hynson Fleming, LL.B.; A.B., Ohio Wesleyan University, 1886; A.M., 1889; Crete, Neb.
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1889.

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1890.

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1891.

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William Smith O'Brien, Attorney-at-Law, Buckhannon, W. Va.
Christian Bealle Riggle, Attorney-at-Law, Middlebourne, W. Va.
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1893.

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1897.

Homer Adams, Attorney-at-Law, Summers, W. Va.
Paul Gamble Allen, LL.B., 1897; taught term of '97 and '98; admitted to Moorefield Bar March, 1898; Moorefield, W. Va.
John Irvin Blayney, Attorney-at-Law, Thornton, Ind.
John Hugh Bowers, Teacher, Brushy Run, W. Va.
John Brannon Bennett, Attorney-at-Law, Weston, W. Va.
Clarence Rand Burdette, Attorney-at-Law; General Insurance Agent and Broker and Real Estate Agent, Charleston, W. Va.
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Nathan Winnet Campbell, Attorney-at-Law, Euclid, Pa.
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Charles Hugo Harrison, Teacher, Petroleum, W. Va.
Elias Brumbaugh Hartle, Hagerstown, Md.
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Ralph Webster Heavener, deceased, Buckhannon, W. Va.
Phillip Smith Heck, Attorney-at-Law, Fairmont, W. Va.
Cary Clouny Hines, LL.B., 1897; Attorney-at-Law, Sutton, W. Va.
Edwin Oscar Keifer, Attorney-at-Law, New Martinsville, W. Va.
Amos Ernest Keney, Student in West Virginia University, Arnoldsburg, W. Va.
George Henry Augustus Kunst, A.B.; Graduate Student, West Virginia University, Pruntytown, W. Va.
Claude Wilson Maxwell, Attorney-at-Law; member of firm of Maxwell & Maxwell, Parsons, W. Va.
Ephraim F. Morgan, Lawyer, Fairmont, W. Va.
Lloyd V. McIntire, Attorney-at-Law, New Martinsville, W. Va.
C. Ervin Nethkin, Elk Garden, W. Va.
Seaman F. Northrup, Teacher, Beaver Dams, N. Y.
Marshall Weldon Ogden, Lawyer, Fairmont, W. Va.
Benjamin Franklin Rice, Jr., Lawyer, Duff Block, Denver, Col.
George Peabody Shirley, Lawyer, Parsons, W. Va.
Norval Speelman, Lawyer, Selbysport, Md.
Isaac Martin Underwood, LL.B., 1897; Lawyer, Middlebourne, W. Va.
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George S. Wallace, Attorney-at-Law, Huntington, W. Va.
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West Virginia University,

MORGANTOWN, W. VA.

CATALOGUE

1898-99.

MORGANTOWN, W. VA.

PUBLISHED BY THE UNIVERSITY.

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1899

JULY

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CALENDAR.

1899.

May 30, Tuesday .....Memorial Day; a holiday.
June 12-16 .....Quarterly Examinations.
June 15, Thursday, 8 P. M.....Joint Debate.
June 16, Friday, 8 P. M.....Moot Court.
June 17, Saturday, 8 P. M.....Regents' Prize Declamation Contest.
June 18, Sunday, 11 A. M.....Baccalaureate Sermon.
June 19, Monday, 8 P. M.....Closing Recital in the School of Music.
June 20, Tuesday, 2 P. M.....Competitive Drill.
June 20, Tuesday, 8 P. M.....Inter-Society Contest.
June 21, Wednesday, 10 A. M....Company Competition for Corps Colors.
June 21, Wednesday, 2 P. M.....Field Day.
June 21, Wednesday, 8 P. M.....Wiles Prize Oratorical Contest.
June 22, Thursday, 10 A. M.....Commencement Exercises.
June 22, Thursday, 2.30 P. M.....Alumni Business Meeting.
June 22, Thursday, 8 P. M.....Commencement Reception.
June 23-30 .....Quarterly Recess.
July 1, Saturday.....First Term of Summer Quarter begins.
July 1, Saturday.....Matriculation and Registration of Students.
July 1, Saturday, 10 A. M.....Quarterly Convocation.
July 3, Monday, 8 A. M.....Recitations of Summer Quarter begin.
July 4, Tuesday.....Independence Day; a holiday.
Aug. 11, Friday.....First Term of Summer Quarter ends.
Aug. 12, Saturday.....Second Term of Summer Quarter begins.
Sept. 18-22 .....Quarterly Examinations.
Sept. 22, Friday.....Second Term of Summer Quarter ends.
Sept. 23-30 .....Quarterly Recess.
Oct. 1, Sunday.....Fall Quarter begins.
Oct. 2, Monday.....Matriculation and Registration of Students.
Oct. 2, Monday, 10 A. M.....Quarterly Convocation.
Oct. 3, Tuesday, 8 A. M.....Recitations of Fall Quarter begin.
Nov. 23, Thursday.....Thanksgiving Day; a holiday.
Nov. 23, Thursday, 8 P. M...Thanksgiving Reception by the Woman's League.
Dec. 18-22 .....Quarterly Examinations.
Dec. 22, Friday.....Fall Quarter ends.
Dec. 23-31 .....Quarterly Recess.

1900.

Jan. 1, Monday.....Winter Quarter begins.
Jan. 1, Monday.....New Year's Day; a holiday.
Jan. 2, Tuesday.....Matriculation and Registration of Students.
Jan. 2, Tuesday, 10 A. M.....Quarterly Convocation.
Jan. 3. Wednesday, 8 A. M.....Recitations of Winter Quarter begin.
Feb. 22, Thursday.....Washington's Birthday; a holiday.
March 19-23.....Quarterly Examinations.
March 23, Friday.....Winter Quarter ends.
March 24-31 .....Quarterly Recess.
April 1, Sunday.....Spring Quarter begins.
April 2, Monday.....Matriculation and Registration of Students.
April 2, Monday, 10 A. M.....Quarterly Convocation.
April 3, Tuesday, 8 A. M.....Recitations of Spring Quarter begin.
May 30, Wednesday .....Memorial Day; a holiday.
June 11-15 .....Quarterly Examinations.
June 21, Thursday.....Commencement Day; Spring Quarter ends.

BOARD OF REGENTS.

For the Term ending June 1, 1903.

P. C. EASTHAM, Point Pleasant. W. E. POWELL, Parkersburg.
GEORGE C. STURGISS, Morgantown.

For the Term ending June 1, 1905.

JAMES F. BROWN, Charleston. A. H. KUNST, Weston.
RICHARD RANDOLPH McMAHON, Harper's Ferry.

Officers of the Board of Regents.

GEORGE C. STURGISS, *President.*
SAMUEL B. BROWN, *Secretary.*
A. R. WHITEHILL, *Treasurer.*
S. G. CHADWICK, *Auditor.*

OFFICERS OF INSTRUCTION

AND

ADMINISTRATION.

Jerome Hall Raymond

THE FACULTY.

versity, and Professor of English.

A.B., West Virginia University, 1886; A.M., *ibid.*, 1889. Principal West Liberty State Normal School, 1886-93; Member of bar of Wheeling, West Virginia, 1890; Professor of Mathematics, West Virginia University, 1893-4; Graduate Student, University of Chicago, 1898; Professor of English, West Virginia University, since 1894; Vice-President, *ibid.*, since 1897.

POWELL BENTON REYNOLDS, D.D., Chaplain of the University, and Professor of Philosophy.

A.M., West Virginia University, 1887; D.D., Richmond College, 1890. Student, Richmond College, 1866-70; President Shelton College, 1872-84; President Buckner College, 1884-5; Professor of English, West Virginia University, 1885-9; Vice-President and Professor of Metaphysics, *ibid.*, 1889-93; Acting President, *ibid.*, 1893-5; Professor of Metaphysics and Political Science, *ibid.*, 1895-7; present position since 1897.

OKEY JOHNSON, LL.B., A.M., Dean of the College of Law, and Professor of Constitutional and International Law and the Law of Corporations.

LL.B., Harvard University, 1858; A.M., Marietta College, 1874. Admitted to the bar, 1858; Attorney-at-law, Middlebourne, 1858-62; Parkersburg, 1862-77; Member West Virginia Senate, 1870-1; Member West Virginia Constitutional Convention, 1872; Judge of West Virginia Supreme Court of Appeals, 1877-90; President, *ibid.*, 1883-90; Attorney-at-law, Charleston, 1890-5; present position since 1895.

THOMAS CLARK ATKESON, Ph.D., Dean of the College of Agriculture, and Professor of Agriculture.

LL.B., Kentucky University, 1874; Ph.B., Central Normal College, 1891; Ph.D., *ibid.*, 1893. Student, Kentucky Agricultural and Mechanical College, 1874-6; editor "West Virginia Agriculturist," 1873-4; associate editor "Farmers' Friend," 1882-99; associate editor "American Grange Bulletin," 1893-9; Practical farmer since boyhood; President and member of West Virginia State Board of Agriculture and Farmers' Institute Lecturer, 1891-9; Professor of Agriculture, West Virginia University, 1891-3; West Virginia State Grange Secretary, 1882-4; Lecturer, 1884-6; Overseer, 1886-96; Master, 1896-9; Regent West Virginia University, 1897; President, Barboursville College, 1896-7; present position since 1897.

CHARLES ALFRED ELLENBERGER, Director of the School of Music, and Professor of Music.

Graduate, New England Conservatory of Music, 1884; Graduate student, Boston and New York, 1895-7; Director School of Music, Ripon College, 1884-8; Private teaching, organist, and oratorio and choir director, Knoxville, Tenn., 1888-90; Director School of Music, Tompkinson Seminary, and organist, oratorio director, etc., Harrisburg, Pa., 1890-7; present position since 1897.

WAITMAN BARBE, A.M., Assistant to the President.

B.S., West Virginia University, 1884; M.S., *ibid.*, 1897; A.M., *ibid.*, 1897. City editor "Daily State Journal," Parkersburg, W. Va., 1885-9; Managing editor, *ibid.*, 1889-95; Regent West Virginia State Normal Schools since 1895; Field Agent, West University, 1895-8; present position since 1898.

ST. GEORGE TUCKER BROOKE, LL.D., Professor of Common and Statute Law.

A.M., West Virginia University, 1889; LL.D., Wake Forest College, 1890. Student, University of Virginia Law School, 1867-9; member bar, Charlestown, W. Va., since 1869; present position since 1878.

WILLIAM P. WILLEY, A.M., Professor of Equity Jurisprudence and Commercial Law.

A.B., Dickinson College, 1862; A.M., *ibid.*, 1865; member bar, Morgantown, W. Va., and Baltimore, Md., 1865-78; editor Wheeling "Register," 1878-83; present position since 1883.

ALEXANDER REID WHITEHILL, Ph.D., Professor of Chemistry.

A.B., Princeton University, 1874; A.M., *ibid.*, 1877; Ph.D., Washington and Jefferson College, 1887. Fellow in Experimental Science, Princeton University, 1874-5; Graduate student, University of Leipzig and Freiberg School of Mines, Germany, 1874-5; Professor of Experimental Science, University Mound College, 1876-81; Principal Linsly Institute, 1881-5; present position since 1885.

JAMES WILLIAM HARTIGAN, A.M., M.D., Professor of Biology.

M.D., University of Wooster, 1884; M.D., Bellevue Hospital Medical College, 1887; M.D., Baltimore Medical College, 1887; A.M., West Virginia University, 1888; M.D., Indiana College of Eclectic Medicine, 1888. Graduate in Obstetrics, Newlands College of Midwifery, 1892; Fellow of the Royal Microscopical Society (London, England), 1892; Ambulance Surgeon, Bellevue Hospital, 1886-7; Graduate student in Bacteriology, New York Post Graduate School and Hospital, Summer, 1897. Professor of Anatomy, Physiology and Botany, West Virginia University, 1887-9; Microscopist, West Virginia Agricultural Experiment Station, 1888-9; Surgeon, Corps of Cadets, West Virginia University, since 1889; Instructor in Physical Training and Director of the Gymnasium, *ibid.*, 1891-98; present position since 1889.

JOHN LINDSAY JOHNSTON, C.E., Professor of Civil and Mining Engineering.

B.S., West Virginia University, 1883; M.S., *ibid.*, 1886; C.E., *ibid.*, 1889. Assistant Locating Engineer, W. V. & P. R. R., 1883-5; Draughtsman, C. W. & B. R. R., 1885; Locating and Construction Engineer, W. & C. Natural Gas Company, Pittsburg, 1885-6; Assistant to Division Engineer, B. & O. R. R., 1886; Assistant Engineer, Penna. R. R., 1886-90; Instructor in Engineering, West Virginia University, 1890-1; Professor of Applied Mathematics and Drawing, *ibid.*, 1891-3; present position since 1893.

SAMUEL B. BROWN, A.M., Professor of Geology and Mineralogy.

A.B., West Virginia University, 1883; A.M., *ibid.*, 1886. Graduate student, National Museum, 1884; Harvard University, 1891. Teacher of Languages and Mathematics, Martinsburg, W. Va., 1883-5; Principal Glenville State Normal School, 1885-90; Assistant in Geology, West Virginia University, 1890-2; present position since 1892.

WILLIAM SLEEPER ALDRICH, M.E., Professor of Mechanical Engineering.

Graduate United States Naval Academy, 1883; M.E., Stevens Institute of Technology, 1884. Assistant in Mathematics and Drawing, Boys' High School, Reading, Pa., 1885-7; Assistant in Free Hand and Architectural Drawing and Design, Central Manual Training School, Philadelphia, 1887-9; Graduate student in Mathematics and Electrical Engineering, and Instructor in Drawing, Johns Hopkins University, 1889-91; Associate in Mechanical Engineering, *ibid.*, 1891-2; present position since 1892. Member American Society of Mechanical Engineers.

THOMAS CONDIT MILLER, A.M., Professor of Pedagogy, and Principal of the Preparatory School.

Graduate State Normal School, 1873; A.M., West Virginia University, 1889. Principal Fairmont High School, 1873-4; Student, Adrian College, 1875-7; Superintendent of Schools, Fairmont, W. Va., 1877-93; present position since 1893.

JAMES SCOTT STEWART, M.S., Professor of Mathematics.

B.S., West Virginia University, 1877; M.S., *ibid.*, 1880. Assistant in Preparatory School, West Virginia University, 1877-91; Professor of Mathematics, *ibid.*, 1891-3; Superintendent of Schools, Fairmont, W. Va., 1893-4; present position since 1894.

ROBERT WILLIAM DOUTHAT, Ph.D., Professor of the Latin Language and Literature.

A.M., Emory and Henry College, 1874; Ph.D., Roanoke College, 1877. Professor of Languages, Missouri University School of Mines and Metallurgy, 1873-84; President Collegiate Institute (New Mexico), 1884-7; President Collegiate Institute (Arkansas), 1887-9; Professor of Languages, Kentucky Military Institute, 1889-90; President Barboursville College, 1890-5; Professor of Ancient Languages, West Virginia University, 1895-7; present position since 1897.

LEE CLEVELAND CORBETT, M.S., Professor of Horticulture and Forestry, and Horticulturist of the West Virginia Agricultural Experiment Station.

B.S., Cornell University, 1890; M.S., *ibid.*, 1896. Assistant Horticulturist, Cornell University, 1891-2; Professor of Horticulture and Forestry, South Dakota Agricultural College, 1893-5; present position since 1895.

BERT HOLMES HITE, M.S., Professor of Agricultural Chemistry, and Chemist of the West Virginia Agricultural Experiment Station.

M.S., West Virginia University, 1890. Graduate student, Johns Hopkins University, 1891-5; Fellow in Chemistry, *ibid.*, 1893-5; Chemist of the West Virginia Agricultural Experiment Station since 1895; Professor of Organic Chemistry, West Virginia University, 1895-7; present position since 1897. Chief Chemist of the Geological and Economic Survey of West Virginia.

THOMAS EDWARD HODGES, A.M., Professor of Physics.

A.B., West Virginia University, 1881; A.M., *ibid.*, 1884. Principal Morgantown Public Schools, 1881-6; Principal and Instructor in Natural Science and Pedagogy, Marshall College State Normal School, 1886-96; present position since 1896. Graduate student, Cornell University, Summer, 1897.

ANDREW DELMAR HOPKINS, Ph.D., Professor of Economic Entomology, and Vice-Director and Entomologist of the West Virginia Agricultural Experiment Station.

Ph.D., West Virginia University, 1893. Special Agent in Entomology, West Virginia Agricultural Experiment Station, 1890-1; Entomologist, *ibid.*, since 1891; Professor of Economic Entomology, West Virginia University, since 1896; Vice-Director of the Experiment Station since 1897.

FREDERICK LINCOLN EMORY, B.S., M.M.E., Professor of Mechanics and Applied Mathematics.

B.S., Worcester, Mass., Polytechnic Institute, 1887; M.M.E., Cornell University, 1896. Director Mechanical Department, Washington, D. C., High School, 1887-90; Superintendent Trades Schools, Concord Junction, Mass., 1890-1; Professor of Mechanical Engineering and Mechanic Arts, West Virginia University, 1891-3; Director Indianapolis, Ind., Industrial Training and Technical High School, 1893-5; Graduate student, Cornell University, 1895-6; present position since 1897. Member American Society of Mechanical Engineers.

LEWIS CASS WOOLERY, A.M., Professor of the Greek Language and Literature.

A.B., Bethany College, 1884; A.M., *ibid.*, 1888. Principal Lafayette Seminary, Higginsville, Mo., 1884-6; Professor of Greek, Bethany College, 1887-93; member bar, Louisville, Ky., 1893-5; Professor of Greek, Drake University, Des Moines, Iowa, 1895-7; present position since 1897.

ALFRED JARRETT HARE, A.B., Professor of the Latin Language and Literature.

A.B., West Virginia University, 1889. Assistant in Latin and Mathematics, Preparatory School, West Virginia University, 1889-96; Preparatory Professor of Ancient Languages and Mathematics, *ibid.*, 1896-8; present position since 1898.

*FREDERIC WILLIAM SANDERS, Ph.D., Professor of European History.

A.B., College of the City of New York, 1883; A.M., Harvard University, 1892; Ph.D., University of Chicago, 1895. Private teacher, editor and law student, 1883-7; Counsellor-at-law, New York, 1887; Law Practice in New York and Tennessee, 1887-91; Graduate student, Harvard University, 1891-2; Graduate student, University of Chicago, and assistant editor of "Unity," 1893-5; University Fellow, Columbia University, 1895-6; University Extension Lecturer, University of Chicago, 1896-7; Assistant Professor of European History, West Virginia University, 1897-9; present position since 1899. President-elect, New Mexico College of Agriculture and Mechanic Arts, 1899.

RICHARD ELLSWORTH FAST, LL.B., Ph.B., Professor of American History and Political Science, and Acting Professor of Military Science and Tactics.

LL.B., West Virginia University, 1886; Ph.B., *ibid.*, 1898; Hon. A.M., Bethany College, 1898. Practicing law, 1886-97; student, Harvard University, 1897; member West Virginia Senate, 1896-1900; Colonel 1st Infantry, W. V. N. G., 1893-97; Colonel, aide-de-camp, General Staff, W. V. N. G., 1899; detailed Commandant of Cadets, West Virginia University; Instructor in American History and Political Science, *ibid.*, 1897-8; Assistant Professor, *ibid.*, 1898-9; present position since 1899.

FREDERICK WILSON TRUSCOTT, Ph.D., Professor of Germanic Languages and Literatures.

A.B., Indiana University, 1891; A.M., *ibid.*, 1892; A.M., Harvard University, 1894; Ph.D., *ibid.*, 1896. Instructor in German, Indiana University, 1891-3; Assistant in German, Harvard University, 1893-4; Scholar in Modern Languages, *ibid.*, 1894-6; Graduate student, University of Berlin, 1896-8; Assistant Professor of Germanic Languages and Literatures, West Virginia University, 1898-9; present position since 1899.

KENNETH McKENZIE, Ph.D., Professor of Romance Languages and Literatures.

A.B., Harvard University, 1891; A.M., *ibid.*, 1893; Ph.D., *ibid.*, 1895. Abroad, 1891-2; Instructor in Modern Languages, Union College, 1895-8; Assistant Professor of Romance Languages and Literatures, West Virginia University, 1898-9; present position since 1899.

*Resigned.

CHARLES HENRY PATTERSON, A.M., Professor of Rhetoric and Elocution.

A.B., Tufts College, 1887; A.M., *ibid.*, 1893. Student in Elocution, 1887-8; Principal of High School, West Newbury, Mass., 1888-9; Principal and teacher of Elocution, Preparatory School, Turners Falls, Mass., 1889-91; student of dramatic art, Boston Museum, Margaret Mather and other companies, 1891-3; graduate student in English, Tufts College, 1891-3; Principal and teacher of English and Elocution, Preparatory School, Hinsdale, N. H., 1893-8; student, School of Expression, Boston, Mass., 1895; teacher, *ibid.*, 1896-7, and summer session at Plymouth, Mass., 1896; student at Comédie Française, Paris, 1897; pupil of M. T. Brown, S. S. Curry, Otis Skinner, Georges Berr, and others; Assistant Professor of Rhetoric and Elocution, West Virginia University, 1898-9; present position since 1899.

FREDERICK PHILIP RUHL, D.V.S., Professor of Veterinary Science.

D.V.S., American Veterinary College, New York, 1884. Practicing veterinary medicine since 1884; Consulting Veterinarian, West Virginia State Board of Agriculture since 1896; present position since 1899.

DENNIS MARTIN WILLIS, Instructor in Bookkeeping and Commercial Practice, and Principal of the Commercial School.

Instructor, Methodist Conference Seminary, Buckhannon, 1891-2; Instructor, West Virginia Business College, 1892-3; Instructor, Northwestern Academy, Clarksburg, 1893-4; Instructor, Central Commercial College, Cumberland, Md., 1894-5; Principal, Weston College of Commerce, 1895; present position since 1895.

EVA EMMA HUBBARD, Instructor in Drawing and Painting.

Graduate, Morgantown Female Seminary, 1876; student in Mrs. J. P. Wilkinson's studio, Wheeling, 1881-2; Instructor in Drawing and Painting, Wheeling Female College, 1883-4; Student in the Carl Hecker Art School, New York City, 1884-5; Instructor in Fine Arts, Mountain Lake Park Summer Chautauqua, 1885-8; private studio, Wheeling, 1889-94; Instructor in Drawing and Painting, Mrs. M. Stephen Hart's School for Young Ladies, 1894-7; present position since 1897.

RUSSELL McMURPHY, Instructor on the Piano.

Graduate, New England Conservatory of Music, Boston, 1892; Principal Musical Department, St. Mary's College, Dallas, Texas, 1892-5; Graduate work with Barth in Berlin, 1895-6; principal Music Department, St. Mary's College, 1896-7; present position since 1897.

FRANK WILLIAM KEENE, Instructor on Stringed Instruments.

Student, New England Conservatory of Music, Boston, 1890-4; student, Henry Heindl, 1891-4; Principal, Stringed Instruments Departments, Kansas Normal School, Emporia, 1894-7; present position since 1897.

CLEMENT ROSS JONES, M.E., Instructor in Mechanical Engineering.

B.S.C.E., West Virginia University, 1894; M.E., *ibid* 1897. Associate Principal, West Virginia College, 1894; Professor of Military Science and Mathematics, McKeesport Military College, 1895; Assistant in Mechanical Engineering, West Virginia University, 1895-8; present position since 1898. Associate Member American Society of Mechanical Engineers.

RUSSELL LOVE MORRIS, C.E., Instructor in Civil and Mining Engineering.

B.S.C.E., West Virginia University, 1895; C.E., *ibid.*, 1898. Consulting Engineer, State Board of Agriculture; Chief Draughtsman, West Virginia State Geological and Economic Survey; Assistant in Civil and Mining Engineering, West Virginia University, 1895-8; present position since 1898.

BENJAMIN GRAEFF PRINTZ, Director of the Gymnasium and Instructor in Physical Training.

Student, Hemenway Gymnasium, Harvard University; Director of the Gymnasium and Instructor in Physical Training, Wittenberg College, 1892-8; present position since 1898.

——— ———, Instructor in Domestic Science.

DANIEL JENIFER BARTON, A.B., Assistant in Mathematics.

Graduate, University of Virginia, 1891; A.B., West Virginia University, 1898. Admitted to the bar, 1891; present position since 1896.

RUFUS WEST, Assistant in Mechanical Engineering.

Student, Spring Garden Institute, Philadelphia, 1897; present position since 1892.

ELIZABETH LEE WHITESCARVER, Assistant in Shorthand and Typewriting.

Student in Commercial School, West Virginia University, 1896-8; present position since 1898.

GRACE MARTIN, B.M., Assistant on the Piano.

Graduate, Virginia College for Young Ladies, 1893; B.M., *ibid.*, 1894. Instructor in Piano Department, *ibid.*, 1893-4; graduate student, Peabody Institute, Baltimore, 1895-6; present position since 1897.

EDGAR STEWART, LL.B., Assistant in Law.

LL.B., West Virginia University, 1896. Present position since 1898.

LLOYD LOWNDES FRIEND, A.B., Assistant in English.

A.B., West Virginia University, 1897. Assistant in West Virginia University Preparatory School, Montgomery, 1897-8; Fellow in English, West Virginia University, 1898-9; present position since 1899.

DANIEL WEBSTER OHERN, A.B., Assistant in Greek.

A.B., Drake University, 1898. Fellow in Greek, West Virginia University, 1898-9; present position since 1899.

THOMAS GETZANDANER HILL, Assistant in Brass and Wood Wind Instruments.

ARTHUR LEE POST, A.B., Fellow in Chemistry.

A.B., West Virginia University, 1898. Present position since 1898.

BERNARD CAMILLUS BONDURANT, A.M., Fellow in Latin (1899-1900).

A.B., Hampden-Sidney College, 1891; A.M., Bethany College, 1898. Professor of Latin, Bethany College, 1895-9; graduate student, West Virginia University, 1898.

THOMAS CARSKADON JOHNSON, B.S.Agr., Fellow in Mathematics (1899-1900).

B.S.Agr., West Virginia University, 1896. Instructor in Mathematics and Science, Lee Military Institute, 1896-9.

WILLIAM FRAZIER NARET, B.Agr., Fellow in Agriculture (1899-1900).

B.Agr., West Virginia University, 1898; candidate for B.S.Agr., *ibid.*, 1899.

ROBERT MORRIS, A.B., Fellow in Economics (1899-1900).

A.B., University of Nashville, 1896; candidate for A.B. and LL.B., West Virginia University, 1899.

SIMEON CONANT SMITH, A.B., Fellow in Rhetoric and Elocution (1899-1900).
A.B., Tufts College, 1898.

CHARLES FENTON HOLDEN, Fellow in English Literature (1899-1900).
Candidate for A.B., West Virginia University, 1899.

CHARLES CLEAR BALLARD, Fellow in Romance Languages (1899-1900).
Candidate for A.B., Union College, 1899.

ALLEN WILSON PORTERFIELD, Fellow in German (1899-1900).
Candidate for A.B., West Virginia University, 1899; Instructor in Shepherd College State Normal School, 1899.

SPECIAL INSTRUCTORS AND LECTURERS, SUMMER QUARTER, 1899.

DAVID STARR JORDAN, Ph.D., LL.D., President of Leland Stanford Junior University, Lecturer on Biological Sociology.

CHARLES WILLIAM DABNEY, Ph.D., LL.D., President of the University of Tennessee, Lecturer on Southern Education.

DANIEL BOARDMAN PURINTON, Ph.D., LL.D., President of Denison University, Lecturer in Philosophy.

WILLIAM LYNE WILSON, LL.D., President of Washington and Lee University, Lecturer in Political Science.

WILLIAM H. CRAWFORD, D.D., President of Allegheny College, Lecturer in Philosophy.

JOHN MERLE COULTER, Ph.D., Head Professor of Botany in the University of Chicago, Lecturer in Botany.

JAMES HENRY HAMILTON, LL.B., Ph.D., Professor of Political Economy in Syracuse University, Lecturer in Economics.

DANIEL EDWARD PHILLIPS, Ph.D., Professor of Philosophy and Pedagogy in the University of Denver, Lecturer in Philosophy and Pedagogy.

LUCY CELESTE DANIELS, A.M., Instructor in History in Lewis Institute, Lecturer in History.

J. DAVID THOMPSON, A.M., M.S., Late Scholar of Trinity College, Cambridge, England, Lecturer in Mathematics and Astronomy.

STAFF OF THE PREPARATORY SCHOOL AT MONTGOMERY.

JOSIAH KEELEY, A.B., Principal of the Preparatory School at Montgomery.
A.B., West Virginia University, 1896. Present position since 1897.

RUBY RAY KNIGHT, B.S., Assistant in the Preparatory School at Montgomery.

B.S., Ohio State University, 1896. Present position since 1896.

ALTHA WARMAN, A.B., Assistant in the Preparatory School at Montgomery.

A.B., West Virginia University, 1893. Graduate student, *ibid.*, 1897-8; present position since 1898

LIBRARY STAFF.

ELIZA JANE SKINNER, Librarian.

Student, Zurich, Heidelberg and Paris, 1893-5; Librarian, Matson Public Library, Princeton, Ill., 1896; Library School, Armour Institute of Technology, 1896-7; Instructor in Cataloguing, Summer School of Library Science, University of Wisconsin, 1897; Library Director, West Virginia University, 1897-8; present position since 1898.

ANNA BANCROFT WHITE, B.S., Assistant in the Library.

B.S., West Virginia University, 1895. Graduate student, *ibid.*, 1897-8; present position since 1897.

FRANCIS ALOYSIOUS HAUBER, B.S., Assistant in the Library.

B.S., Villanova College,, 1897. Student, West Virginia University, 1897-9; present position since 1897.

AGRICULTURAL EXPERIMENT STATION STAFF.

JAMES HENRY STEWART, A.M., Director and Agriculturist.

ANDREW DELMAR HOPKINS, Ph.D., Vice-Director and Entomologist.

BERT HOLMES HITE, M.S., Chemist.

LEE CLEVELAND CORBETT, M.S., Horticulturist.

WILLIAM EARL RUMSEY, B.S.Agr., Botanist and Assistant Entomologist.

THEODORE FERME WATSON, B.S., Assistant Chemist.

HORACE ATWOOD, M.S., Assistant Agriculturist.

CHARLES DANFORTH HOWARD, B.S., Assistant Chemist.

EUGENE CARL FRAME, Clerk and Stenographer.

MARTHA ANNE STEWART, Librarian.

OTHER OFFICERS.

ALBERT JACKSON COLLETT, Secretary to the President.

ELLA ELIZABETH EGBERT, Secretary to the President.

HENRY ST. CLAIR, Armorer.

WEST VIRGINIA UNIVERSITY.

Organization.

The University organization consists of the following colleges, schools, and departments:

I. The College of Arts and Sciences.
II. The College of Engineering and Mechanic Arts.
III. The College of Agriculture.
IV. The College of Law.
V. The School of Music.
VI. The Commercial School.
VII. The Preparatory Schools.
VIII. The Department of Drawing and Painting.
IX. The Department of Instruction by Correspondence.
X. The Military Department.
XI. The Department of Physical Training.
XII. The Department of Domestic Science.

I. The College of Arts and Sciences offers:
   (a) Undergraduate courses as follows:
      1. The Classical Course, leading to the degree of Bachelor of Arts (A.B.).
      2. The Scientific Course, leading to the degree of Bachelor of Science (B.S.).
      3. The Philosophical Course, leading to the degree of Bachelor of Philosophy (Ph.B.).
      4. The Modern Literature Course, leading to the degree of Bachelor of Letters (B.L.).
      5. The Premedical Course, which does not lead to any degree, but admits to advanced standing in leading medical colleges.
   (b) Graduate courses leading to the following degrees:
      1. Master of Arts (A.M.).
      2. Master of Science (M.S.).
      3. Master of Philosophy (Ph.M.).
      4. Master of Letters (M.L.).

II. The College of Engineering and Mechanic Arts offers:
   (a) Undergraduate courses as follows:
      1. The four year course in Civil Engineering, leading to the degree of Bachelor of Science in Civil Engineering (B.S.C.E.).
      2. The four year course in Mechanical Engineering, leading to the degree of Bachelor of Science in Mechanical Engineering (B.S.M.E.).

3. The two-year certificate Mechanical Course.
4. The two-year certificate Electrical Course.
5. The two-year certificate Civil and Mining Engineering Course.
6. The one-year Manual Training Course.
7. Special Courses in:
   (1) Land Surveying.
   (2) Mining Engineering.
   (3) Railroad Engineering.

(b) Graduate courses leading to the following degrees:
1. Civil Engineer (C.E.).
2. Mechanical Engineer (M.E.).

III. The College of Agriculture offers:
1. The four year course leading to the degree of Bachelor of Science in Agriculture (B.S.Agr.).
2. The two year course leading to the degree of Bachelor of Agriculture (B.Agr.).
3. The one-year certificate course.
4. The twelve weeks special courses.

IV. The College of Law offers:
1. The four year course leading to the degree of Bachelor of Laws (LL.B.).
2. The two year certificate course.

The University Year.

The University is virtually in continuous session, the three months' vacation in summer having been abolished, so far as the University itself is concerned. The University year is divided into four quarters, of twelve weeks each, with recesses of one week between quarters. No student or instructor is expected to work at the University more than nine months out of twelve, unless he desires to do so. Under this system a student may begin his work at the beginning of any quarter, and may take his vacation either during the summer quarter, or during the fall, winter or spring quarter. He is, however, at liberty to continue his University work during all four quarters, if he is strong enough, and desires to do so. Similarly, an instructor may arrange to take his vacation in any quarter of the year, provided arrangements can be made in regard to the instruction in his department. The courses of instruction are arranged so that the work of each quarter is complete in itself. The classes in most subjects meet five times a week, enabling many topics to be covered in single quarters, and many more new classes to begin with each quarter than is possible under any other system. Courses for which there is great demand are given more than once in the same year, so that any student in attendance during that year may have the opportunity of taking them, in whatever quarter or quarters he takes his vacation.

The summer quarter is especially attractive to teachers. Detailed announcements for the summer quarter are given in a circular of announcements, which may be had on application.

The four quarters of the University year begin July 1, October 1, January 1 and April 1. Each quarter is divided into two terms of six weeks each.

Origin and Location.

In 1814 the Legislature of Virginia passed an act incorporating the Monongalia Academy, and locating it at Morgantown. The first building was a one-story brick structure, divided into two rooms. In 1828 this building was sold and a two-story brick building erected. As a further endowment, the Virginia Legislature passed an act authorizing the trustees of the Academy to raise twenty thousand dollars by a lottery, and the drawings for this lottery were conducted January 26, 1832. In later years the Monongalia Academy became an institution of wide reputation, drawing students at one time from fourteen states. For more than fifty years it was the leading school in Virginia west of the mountains.

On July 2, 1862, Congress passed an act donating public lands to the several states to establish "colleges for the benefit of Agriculture and the Mechanic Arts." In 1864 this act was extended to the new state of West Virginia, and in 1867 the West Virginia Agricultural College was founded. The trustees of the Monongalia Academy gave to the state all of the real estate and personal effects of the Academy. The building and grounds of Woodburn Seminary, a school for girls in Morgantown, were also donated, and the new College succeeded the old academy and seminary, inheriting an honorable record and much good will. The first faculty meeting was held August 20, 1867, and on September 2 of that year the school was fo mally opened. In 1868 the name of the new institution was changed by act of the Legislature to the West Virginia University.

Morgantown, the seat of the University, is the county seat of Monongalia county, and is a beautiful little town of thirty-five hundred inhabitants, on the Monongahela river and the Baltimore and Ohio Railroad, 103 miles east of Wheeling, and the same distance south of Pittsburg. It has the modern conveniences of natural gas, waterworks, electric lights, and local and long-distance telephones, and is noted for its healthful conditions, physical, social and moral. There are churches of the following denominations in the town: Presbyterian, Methodist Episcopal, Methodist Protestant, Baptist, Protestant Episcopal, Lutheran, Christian, and Roman Catholic. There are no saloons in Morgantown.

Few institutions of learning have more attractive natural sites. The University grounds border the Monongahela river, and afford a

most picturesque outlook. The campus comprises about twenty-five acres, a tract of seven and a half acres having been added this year. The University also has a farm of about one hundred acres for the use of the Agricultural Experiment Station and the College of Agriculture.

Funds.

The funds for maintaining the University are derived from the following sources: (1) Interest on the land grant endowment of $114,750; (2) the Morrill fund; (3) the Hatch fund; (4) biennial appropriations by the State Legislature; (5) fees and tuitions, the latter being paid only by students from other states.

Buildings.

There are seven main brick buildings, as follows:

1. University Hall, a four-story building, containing lecture rooms and the biological laboratory. A large right wing to this building is now being constructed.

2. Martin Hall, a three-story building, containing lecture rooms, the Library, and society halls.

3. Science Hall, a four-story building, containing lecture rooms and laboratories for the departments of Physics, Chemistry, Geology, Civil Engineering, and Drawing and Painting, and also the President's office.

4. Mechanical Hall, a two-story building, containing shops, machinery, and other appliances for instruction in Mechanical Engineering and Mechanic Arts.

5. Commencement Hall, a large two-story building, containing a commodious chapel with 1500 seats, and the gymnasium.

6. Agricultural Experiment Station, a two-story building, containing laboratories, lecture rooms, and offices.

7. Music Building, a two-story building, containing rooms and instruments for the School of Music.

The lecture rooms are crowded, and there is pressing need for additional buildings, and these are now in course of construction, namely:

8. An Armory and Drill Hall for the Military Department.

9. A Library and Museum Building.

Departmental Equipments.

Physics.

The department of Physics has its lecture room and laboratories in Science Hall. A large room on the basement floor of this building has been fitted up as a laboratory and equipped with apparatus for individual experimental work. Work of this character is required of students in every regular course given in the department.

The apparatus for electrical measurements and test work is especially well selected and of superior quality. Students in electrical subjects have opportunity to become familiar with the use of the latest and most improved forms of apparatus for measurement of current, resistance, electromotive force, quantity, capacity, induction, etc.

The lecture table equipment is also quite extensive. The laboratory is open for the use of students every afternoon except Saturday. All laboratory work is under the personal supervision of the instructor.

Chemistry.

The rooms assigned to this department are located on the second floor of Science Hall, and consist of a lecture room and two large laboratories. Connected with these are a dark room, a weighing room, and a preparation room. The laboratories afford working space for fifty students at a time, and are abundantly supplied with water and gas and the chemicals and apparatus necessary for practical work. This apparatus includes a large number of pieces used in illustrating the elementary principles of the science, as well as many of the more expensive instruments used in analytical work. An excellent collection of the latest text and reference books is kept within easy reach of the students, and the aim has been to make the laboratory outfit as complete and ample as possible.

Geology.

The equipment for purposes of illustrative teaching in this subject consists of many thousands of fossils, casts and models, a good collection of minerals, specimens of all of the important building stones, Ward's College Collection in Palæontology, showing the advancement

from the early forms of life to those of the present time. The University is situated in the midst of a great coal producing region, and within five miles of the western fold of the Appalachian mountains, and oil and gas wells are but a short distance away. The natural facilities, therefore, for the study of Geology are unsurpassed.

Biology.

The Biological department is supplied with compound microscopes of the Zeiss pattern. These instruments are recognized by microscopists as the best, and were specially imported from Germany for this department. Its equipment also includes a projection microscope, large freezing and small microtomes, numerous charts, manikins, models, specially prepared human and comparative anatomical preparations; plant and animal histological preparations; abundant material for the study of human and comparative osteology, vivisection and physiological chemistry apparatus; a complete bacteriological outfit with accessories for microscopical photography and air analysis, a Hesse air tester, various physiological apparatus, including a sphygmograph, a haemarumascope, a centrifuge, a spirometer, a large eudiometer, and an Edison X-ray machine, known as the "Edison instantaneous air-brake-wheel apparatus," with a fluoroscope and dark room, including everything necessary for practical work with this piece of apparatus.

Entomology.

The equipment of the Entomological department consists of a collection of over 20,000 specimens and over 7,000 separate notes on original observations taken in West Virginia by the Entomologist. The apparatus for collecting, breeding, mounting, preserving and studying specimens is complete. The microscopic outfit is sufficiently perfect for carrying on any class of study in this line. The photographic department is thoroughly equipped for the requirements of entomological and other work.

Botany.

The collections and equipments of the Botanical department offer superior facilities for the study of economic botany, and the practical features of systematic botany in its relation to agricultural pursuits, containing, as it does, a large series of West Virginia plants, and a special collection of economic plants, weeds and diseased plants; also an excellent outfit for the study of plant diseases.

Civil Engineering.

The material equipment of this department consists of the civil engineering laboratory, equipped with a collection of apparatus and instruments for instruction in engineering believed to be complete and modern, consisting of transits, levels, theodolites, surveyors' compasses, aneroid barometers, plane table, solar compass, sextant clinometers, odometer, pendometers, telemeters, prismatic compass, hand levels, a full collection of drawing instruments, blue printing outfit, complete set of United States standard weights and measures, testing machines for testing strength of materials, as wood, iron, steel, stone, cement, mortar, etc.; a drawing room containing a large number of descriptive geometry models, and models of bridges, furnaces and many other structures, and a large number of wood and plaster paris casts and models pertaining to descriptive geometry, architecture, etc. The equipment of the department of Physics, described above, is of great value to students in the Engineering courses.

Mechanical Engineering.

Practical instruction in Mechanical Engineering and the Mechanic Arts is provided for in the equipment of Mechanical Hall. Standard measures and calculating instruments, laboratory appliances and apparatus are provided for qualitative and quantitative experimental work in engineering.

The electric light and power plant of the University is located in the basement of Mechanical Hall. The boilers, triple-expansion engines, condensers, and electrical machinery, as well as the motive-power machinery of the shop, have been especially selected and arranged for experimental work in Mechanical and Electrical Engineering. In the drawing room, models of the typical valve-gears are used for instruction. Samples of raw materials and of manufactured products are collected, forming the nucleus of an engineering museum. Such machine tools and workshop appliances for working wood and metal, as well as small tools, stock and material, are supplied as will enable the work of instruction to be carried on efficiently in the Mechanic Arts.

Commercial School.

The Commercial School has recently been fitted out with the latest improved modern commercial school furniture, including three new banking counters and office desks, and a complete equipment for the most extensive business practice. Ten new Smith Premier typewriters have been added to the Typewriting department for the use of students.

Gymnasium.

The gymnasium includes all of the first story of Commencement Hall, and is well furnished with Indian clubs, dumb-bells, wands, vaulting, horizontal, traveling and parallel bars; finger, wrist and hand machines; flying rings, chart and intercostal machines, quarter circle, sculling and rowing machines, adjustable ladder, climbing ladder, rosary, plain rope trapeze, traveling rings, striking bags and drum, boxing gloves, hammer and shot, heavy bells, medicine ball, manometer, lockers, large plunge bath and shower baths, horse, batteau boards, take stands, and basket ball outfit.

Athletics.

Besides the regular military drill, physical training exercises and gymnasium instruction, sufficient attention is given to field sports, such as foot-ball, base-ball, track contests, etc.

All field sports are under the control of Professor Thomas E. Hodges, Director of Field Athletics. The West Virginia University Athletic Association has been organized and chartered for the purpose of developing the athletic interests of the University.

The athletic ground, adjoining Commencement Hall, is well adapted to out-of-door sports.

While athletics are given all proper encouragement, they are not permitted to interfere with the regular work of the students.

Young women have the same advantages in the Gymnasium as young men, certain hours being reserved for them, and regular classes being formed exclusively for them.

Societies.

The literary, scientific, religious and other societies of the University are the following:

1. The Columbian Literary Society. Regular meetings every Friday night in its own hall in Martin Hall. Membership open to all students of the University.

2. The Parthenon Literary Society. Regular meetings every Friday night in its own hall in Martin Hall. Membership open to all students of the University.

3. The Engineering Society. Regular meetings the first and third Friday nights of each month in room 14, Science Hall. Membership open to all students in the College of Engineering and Mechanic Arts.

4. The Agricultural Society. Regular meetings every Thursday night in the lecture room of the Experiment Station. Membership open to all students in the College of Agriculture.

5. The Hartigan Anatomical Society. Regular meetings every Friday night in room 30, University Hall. Membership open to all students in Anatomy and allied subjects.

6. The West Virginia Academy of Sciences, Arts, and Letters. Regular meetings the first Tuesday night of every month in the lecture room of the Experiment Station. Membership open to students and instructors of the University, and such others as may be elected.

7. The Young Men's Christian Association. Regular meetings at 6.30 P. M. every Friday in its own hall in Martin Hall. Membership open to all young men in the University.

8. The Woman's League, organized to encourage the attendance of women at the University, and to promote the special interests of the women students socially and intellectually. Regular literary meetings the third Saturday of each month at 3 P. M. Regular social receptions the first Saturday of each month at 3 P. M. Active membership open to all women in the University.

9. The Choral Society. Regular meetings every Tuesday at 7.30 P. M. in Commencement Hall. Membership open to all students in the School of Music and all others interested.

10. The Athletic Association, organized for the purpose of encouraging and developing the athletic interests of the University. Incorporated under the laws of West Virginia. Membership open to all students of the University.

Theses.

Every candidate for a degree is required to present an acceptable thesis before the degree will be conferred. The thesis counts as one full course. Each student elects the department of study in which he will write his thesis, and selects the subject of the thesis in conference with the head of that department. The subject of the thesis and the thesis itself must be approved by the head of the department in which the student elects to write his thesis.

Theses must be typewritten with black non-copying record ink on Crane's Japanese linen paper, of quality 24 pounds to the ream, folio size. This paper, of right quality and correct size, viz., 8x10 inches, may be obtained at the University book room, or at any bookstore in Morgantown. A margin of one and one-fourth inches must be left at the left edge of each sheet, and a margin of three-fourths of an inch on the other edges. The title page should follow, *mutatis mutandis,* the sample title page on the bulletin board in the Library.

When the thesis is typewritten and ready for binding, the student will secure the written approval of the professor under whose direction the thesis has been prepared. This approval is to be written on a blank sheet accompanying the thesis, and must be obtained before the thesis is delivered at the Library.

All theses must be delivered to the University Librarian not later than three weeks before the degree is conferred. The theses will be bound uniformly, and remain permanently in the University Library. The cost of binding each thesis is sixty cents, and this sum must be handed to the Librarian when the thesis is delivered at the Library.

Prizes.

The following prizes are open to students in various departments of the University. No successful contestant may become a second time a competitor for the same prize.

I. The Wiles Prizes in Oratory.

Mr. John W. Wiles, A.B., of the Class of 1894, has offered the following prizes to be awarded each year for excellence in original oratory, for which members of the graduating classes in the regular four years' courses may compete:

(a) A cash prize of one hundred dollars to the competitor who is adjudged best in original oratory;

(b) A gold medal to the competitor who is adjudged second best in original oratory.

The conditions upon which the awards will be made are as follows:

1. All members of the graduating class who wish to take part in the contest shall hand their names to the President of the University not later than the first Monday in February.

2. If not more than five members of the class wish to contest there will be no preliminary contest.

3. If more than five members of the class wish to contest there will be a public preliminary contest on the evening of the third Friday in April.

4. For this preliminary contest the judges shall be the President of the Board of Regents, the President of the University, and the Vice-President of the University.

5. The judges shall select for the final contest the five speakers who, in their judgment, shall excel.

6. No oration on either preliminary or final contest shall be more than twenty minutes long.

7. The judges shall grade each oration on a scale of five for thought and composition, and five for delivery.

8. For the final contest the President of the University shall select three judges who are not connected with the University, and, if possible, non-residents of West Virginia, and of different professions.

9. There shall be no conference between the judges after either preliminary or final contest. Each judge shall be waited upon after the contest by a committee chosen by the contestants. This com-

mittee shall average the grades of the judges, and from these grades make up the final result.

10. The contestants who are selected for the final contest may present for the final contest either the same oration they presented in the preliminary contest, or a new one.

11. All contestants in both preliminary and final contests shall submit typewritten copies of their orations to the judges on the preliminary contest at least one week before the preliminary contest, and two weeks before the final contest.

12. The places of the contestants on the program shall be decided by lot.

II. The Scott Prize in Declamation.

A prize of one hundred dollars will be awarded each year by Hon. N. B. Scott, United States Senator from West Virginia, to the woman student in any department of the University who excels in declamation.

The conditions on which the award will be made are as follows:

1. All women in the University who wish to take part in the contest shall hand their names to the President of the University not later than the second Monday in April, and no one shall be allowed to enter this contest after that date.

2. If not more than nine wish to contest, there will be no preliminary contest.

3. If more than nine wish to contest, there will be a preliminary contest on the third Saturday in April.

4. At the preliminary contest there shall be present only the three judges who shall be selected by the President of the University.

5. The judges shall select for the final contest the nine speakers who, in their judgment, shall excel in declamation.

6. The final contest shall be held on the Monday evening of Commencement week.

7. For the final contest three judges shall be selected by the President of the University.

8. The contestants may present either the same declamation presented in the preliminary contest, or a new one.

9. Each contestant shall submit her selection to the Professor of Elocution for approval.

10. No declamation shall take longer than twenty minutes in delivery.

11. No one who has given public recitals, or taken part in public performances, receiving pay therefor, shall be eligible to compete. Such pay shall not be construed to mean prizes.

12. No graduate of a recognized school of oratory shall be eligible to compete.

III. The Inter-Society Prizes.

Prizes aggregating one hundred and fifteen dollars are awarded annually by the Board of Regents of the University to the literary society whose representatives excel in declamation, original oratory, essay writing, and debate. The conditions on which the awards are made are as follows:

1. The inter-society contest shall hereafter consist of two orations, two essays and two declamations,, and there shall be a separate evening for the joint debate between representatives of the two literary societies.

2. All undergraduate members of the Parthenon and Columbian Literary Societies in attendance at the University shall be eligible contestants on the inter-society contest and the joint debate.

3. Each literary society shall, at its last regular meeting of the fall quarter, select the two debaters who shall represent it in the annual joint debate, and the declaimer, essayist and orator who shall represent it in the annual inter-society contest.

4. The joint debate and the inter-society contest shall take place on such evenings as the faculty committee on joint debate and inter-society contest may determine, but the joint debate and the inter-society contest shall not take place on the same evening.

5. In the joint debate no debater shall speak longer than thirty minutes.

6. In the inter-society contest the orations, essays and declamations shall not exceed twenty minutes in length each.

7. In the joint debate the question for debate shall be chosen in the following manner:

In the scholastic year 1898-99, and in every alternate year thereafter, the representatives of the Parthenon Literary Society shall propose to the representatives of the Columbian Literary Society the question for debate not later than January 6, and the representatives of the Columbian Literary Society shall announce their choice of the affirmative or the negative side of the question not later than January 20. In the scholastic year 1899-1900, and in every alternate year thereafter, the representatives of the Columbian Literary Society shall, in like manner, not later than January 6, propose the question for debate, and the representatives of the Parthenon Literary Society shall decide not later than January 20 whether they will affirm or deny in the discussion of the question proposed.

8. Fifty dollars from the Current and Contingent Fund shall be given to the society whose representatives win the joint debate.

9. Thirty dollars shall be given to the society whose representative in the inter-society contest shall excel in oratory.

10. Twenty dollars shall be given to the society whose representative in the inter-society contest shall present the best essay.

11. Fifteen dollars shall be given to the society whose representative in the inter-society contest shall present the best declamation.

12. The decisions in the joint debate and inter-society contest shall be made by three judges for each contest. These judges shall be selected by a faculty committee on joint debate and inter-society contest, which committee shall consist of the President of the University and two members of the faculty whom he shall appoint. It shall be the duty of this committee to arrange all matters of detail connected with these contests. They shall be judges of the eligibility and election of all contestants, arrange the programs, decide upon the dates, and lay down whatever additional rules may be necessary for the proper management of these contests.

IV. The Edward Thompson Company Prize in Law.

A prize of "The American and English Encyclopædia of Law," value one hundred dollars, will be awarded annually by the Edward Thompson Company to the student in the Senior class of the College of Law who shall write the best essay on a subject selected by the faculty of the College of Law. The subject for 1898-99 is: "The Origin and Development of Corporations." The subject for 1899-1900 is: "What is the Effect of the Fourteenth Amendment to the Constitution of the United States upon the Police Powers of the States?"

The conditions under which this prize is awarded are stated below.

V. The Regents' Prize in Composition.

A prize of twenty-five dollars is awarded annually by the Board of Regents of the University to the student in any of the regular college courses who shall write the best essay on a topic selected by a committee of the faculty. The subject for the year 1898-99 is: "Is a National Income Tax Desirable?" The subject for the year 1899-1900 is: "High Schools in West Virginia."

The conditions on which this prize is awarded are stated below.

VI. The Armstrong Prize in English Literature.

A prize of twenty-five dollars, the gift of Professor Robert Allen Armstrong, A.M., of the Class of 1886, will be awarded annually to the student who shall write the best essay on an assigned topic in English Literature. This prize will not be awarded to any student who has not had at least five full college courses in English. The subject assigned for the year 1898-99 is: "The Influence of Tennyson on his Age." The subject for 1899-1900 will be: "The Mission of Robert Browning."

The conditions on which this prize is awarded are stated below.

VII. The Armstrong Prize in American Literature.

A prize of twenty-five dollars, also the gift of Professor Armstrong, will be awarded annually, under the same conditions as the Armstrong Prize in English Literature, to the writer of the best essay on an assigned subject in American Literature. The subject for the year 1898-99 will be: "Nature in American Poetry." The subject for the year 1899-1900 will be: "The Genius and Art of Nathaniel Hawthorne."

The conditions on which this prize is awarded are stated below.

VIII. The Woman's Christian Temperance Union Prize.

A prize of twenty-five dollars will be awarded annually by the Woman's Christian Temperance Union of Morgantown to the student who shall write the best essay on an assigned subject relating to temperance reform. The subject assigned for the year 1898-99 is: "The Woman's Christian Temperance Union as a Factor in Social Reform." The subject assigned for the year 1899-1900 is: "The Passing of Alcohol."

The conditions on which this prize is awarded are given below.

IX. The Capehart Essay Prizes.

Mr. John C. Capehart, of Morgantown, offers a prize of ten dollars to the student who writes the best essay on the subject "The Origin of Man by Creation, or Objections to the Theory of the Evolution of Man." Mr. Capehart will give a second prize of five dollars to the student who writes the second best essay. All contestants for these prizes are to assign the right of publication to Mr. Capehart.

Conditions of Awarding Essay Prizes.

The following rules and regulations will govern the award of prizes for essays:

1. No limit is set to the length of the essays submitted in competition for these prizes.

2. All essays must be typewritten with black non-copying record ink, on Crane's Japanese linen paper, of quality twenty four pounds to the ream, folio size. This paper, of right quality and size, viz., 8x10 inches, may be obtained at the University book room, or at any bookstore in Morgantown. A margin of one and one-fourth inches must be left at the left edge of each sheet, and the margin must be three-fourths of an inch on the other edges. The title page will follow, *mutatis mutandis,* the sample title page on the bulletin board in the Library.

3. On the title page of each essay must be written an assumed name, and under cover with the essay must be sent a sealed letter

containing the true name of the writer and superscribed with his assumed name.

4. The copies of all essays submitted for these prizes become the property of the University Library, and the essay which receives a prize shall have endorsed upon it a certificate of that fact.

5. The essays submitted for these prizes must be deposited not later than the first Saturday in June with the President of the University, who will appoint three judges for each prize, and the prize will be awarded to the writer of the essay declared by two of the judges to be the best.

6. The decision of the judges will be announced by the President of the University at Commencement.

X. The Elkins Prizes in Greek.

A prize of sixty dollars to the student who makes the highest average grade in the first college year's work in Greek, and a prize of forty dollars to the student who makes the next highest grade in the same work, have been offered by Hon. Stephen B. Elkins, United States Senator from West Virginia.

The conditions on which the awards will be made are as follows:

1. No student will be eligible to these prizes who has not been in the Greek class during the entire three quarters of the year (fall, winter, and spring).

2. In making the awards equal consideration will be given to the daily class work and to the examinations of the entire year.

3. The awards will be made by a committee consisting of the President of the University, the professor of Greek and the assistant in Greek.

4. The awards will be announced at Commencement.

XI. The Jas. F. Thompson Prize in Anatomy and Physiology.

A prize of twenty-five dollars, the gift of Mr. Jas. F. Thompson, of Martinsburg, W. Va., will be awarded annually to the undergraduate student who does the best work in Anatomy and Physiology for three quarters. The award will be determined by the Professor of Biology. The decision will be announced at Commencement.

XII. The McMahon Prize in Music.

A prize of twenty-five dollars, the gift of Hon. Richard Randolph McMahon, a Regent of the University, will be awarded to the student in the School of Music who makes the most progress during the year. The name of the winner of this prize will be announced at Commencement.

XIII. The Regents' Prizes in Declamation.

The Board of Regents of the University annually awards to the student in the Preparatory School who excels in declamation, a prize of fifteen dollars, and prizes of ten dollars and five dollars respectively to the contestants who rank second and third. The conditions under which the awards are made are as follows:

1. Students in the Preparatory School who desire to compete shall hand their names to the Principal of the Preparatory School not later than April 1.

2. If not more than nine students desire to compete there will be no preliminary contest, but if more than nine desire to contest, the Principal of the Preparatory School will arrange for a preliminary contest to select the nine who shall excel in declamation, and these nine shall take part in the final contest.

3. The final contest will be held on the Saturday evening preceding Commencement.

4. The judges of this contest shall be selected by the Principal of the Preparatory School.

XIV. The James O. Thompson Prize in English.

A prize of ten dollars, the gift of Rev. James O. Thompson, of Keyser, W. Va., the editor of the *Mountain Echo,* will be awarded annually to the college student who makes the most progress during the year in English Composition and Rhetoric. The committee of award will consist of the President of the University, the Professor of English, and the Professor of Rhetoric. The award will be announced at Commencement.

XV. The Atkinson Prize.

Hon. Geo. W. Atkinson, Governor of West Virginia, offers a prize of twenty-five dollars in gold to the best all-round student of the University. This prize will be awarded by the faculty, and will be announced and presented on Commencement day. Governor Atkinson says:

"This offer is intended to cover:

1. Manliness,
2. Good morals,
3. Recitations,
4. Presence in class, which covers regularity,
5. Physical prowess. I mean by this the careful cultivation of the body which God gives to every one of his creatures. I mean the putting on a *whip-cord muscle,* which will come in good play in one's future avocation, whatever it may be."

Fellowships.

The Board of Regents has established nine University Fellowships, one each in the departments of Chemistry, Mathematics, Agriculture, Economics, English, Latin, French, German, and Elocution. These Fellowships are established for the purpose of encouraging advanced study and promoting higher scholarship. The regulations governing them are as follows:

1. Each Fellow will be paid $300 annually, and will be excused from the payment of all University fees.

2. The Fellowships will be awarded by the President of the University to candidates for advanced degrees who are graduates of West Virginia University, or other institutions of equal grade.

3. All Fellowships will be filled each year. Fellows may be reappointed for one additional year only.

4. Candidates for Fellowships will send their applications to the President of the University, with evidences of merit, attainments, and ability, not later than May 1 each year. The appointments will be announced at Commencement.

5. Applications must be accompanied by evidences of scholarship, ability, and general worthiness, such as theses (whether prepared for this or other purposes), published writings, testimonials from instructors, outline of educational course pursued, special distinctions gained, and the like. Applications for reappointment should contain a full account of the work of the preceding year. Applications to receive attention must contain a definite statement of the special studies which the applicant intends to pursue.

6. Each Fellow will pursue his studies under the direction of the professor or professors in charge of his special studies. Assignment of University services to each Fellow will be made by the President in consultation with the head of the department to which the Fellow has been assigned. The work assigned will be equivalent to one hour of teaching daily, or the supervision of laboratory work for one laboratory period daily.

Discipline.

The rules and regulations which students are required to observe are few, simple and reasonable,—punctuality and regularity in attendance upon all required exercises; reasonable diligence in the performance of the work prescribed; abstinence from drinking, gambling and like gross vices; and civil, orderly conduct generally.

Students who cannot, or will not, comply with these requirements will not be allowed to remain in the University.

The disciplinary committee consists of the President of the Univer-

sity, the Professor of Military Science and Tactics, and the Dean of the College of Agriculture. This committee has entire charge of all matters of discipline in the University.

Class Officers.

Upon entering the University, each student is assigned by the President to some professor who acts as his class officer, counsels and guides him in all matters pertaining to his studies, and reports his progress at the end of each quarter to his parent or guardian. The class officer acts as the adviser and personal friend of the students assigned to him, and endeavors to further their best interests in every possible way. All promotions are determined by the class officers. The list of class officers at present is as follows:

First year Preparatory students, whose names begin with letters from A to M, Mr. Barton.

First year Preparatory students, whose names begin with letters from M to Z, Mr. Friend.

Second year Preparatory students, Mr. Ohern.

Third year Preparatory students, Professor Hare.

Fourth year Preparatory students, Professor Miller.

Classical Freshmen, Professor Woolery.

Classical Sophomores, Professor Truscott.

Classical Juniors, Professor Armstrong.

Classical Seniors, Professor Reynolds.

Scientific Freshmen, Professor Hodges.

Scientific Sophomores, Professor Stewart.

Scientific Juniors, Professor Emory.

Scientific Seniors, Professor Brown.

Philosophical students, Professor Douthat.

Modern Literature students, Professor Sanders.

Premedical students, Professor Hartigan.

Mechanical Engineering students, Professor Aldrich.

Civil Engineering students, Professor Johnston.

Agricultural students, Dean Atkeson.

Freshmen and Sophomore A.B.L. and LL.B. students, Professor Patterson.

Junior Law students, whose names begin with letters from A to M., Professor Brooke.

Junior Law Students, whose names begin with letters from M to Z, Professor Willey.

Senior Law Students, Dean Johnson.

Music students, Professor Ellenberger.

Art students, Mrs. Hubbard.

Commercial students, Mr. Willis.

Special students, Professor Fast.

Graduate students, Professor McKenzie.

Synoptic Lectures.

A system of synoptic lectures has been adopted, the purpose being to present the outlines of the leading branches taught in the University in such a way as to convey the maximum of important information in the minimum of time, so that students may become familiar with the salient features of subjects which they are unable to take up as regular studies. The synoptic lectures will be given in courses of ten lectures on each subject, one lecture per week. The hour for these lectures is 8 P. M. Tuesdays and Thursdays. To these lectures the public is invited as well as the University students in all departments. At least one course of synoptic lectures will be given each quarter, and more when possible. At the close of each series of synoptic lectures, an examination will be held, and students who pass this examination will be given credit for one-third of a course. Students who desire to receive credit for synoptic lectures will obtain class cards for these lectures from their class officers, the same as for any other class; but students who do not desire credit, and persons not connected with the University, will be admitted to the lectures without cards.

During the coming year the following courses of synoptic lectures will be given:

SUMMER QUARTER, 1899.

"Pedagogical Topics." Professor Phillips, Monday evenings.

"Ethical Topics." President Purinton, of Denison University, July 18-26.

FALL QUARTER, 1899.

"The Chemistry of Every-day Life." Professor Whitehill, Tuesday evenings.

"The Meaning of Mathematics." Professor Emory, Thursday evenings.

WINTER QUARTER, 1900.

"The Life and Works of Dante." Professor McKenzie, Tuesday evenings.

"Physics." Professor Hodges, Thursday evenings.

SPRING QUARTER, 1900.

"History of the Steam Engine." Professor Emory, Tuesday evenings.

"Roman Life and Literature." Professor Douthat, Thursday evenings.

Special Lectures.

In addition to the synoptic lectures given by members of the faculty, the University furnishes a series of public lectures by specialists from other institutions, and all students in the University are invited to attend them.

Chapel Exercises.

The regular University work of each day of the week, except Saturday, begins with Chapel exercises. These exercises consist of singing, reading the Scriptures, and prayer. The service is conducted by the Chaplain of the University, or by some one designated by him. The singing is in charge of the Director of the School of Music. In addition to these exercises, the Chaplain delivers a course of lectures each quarter on such subjects as the origin, structure, literature, history, languages, versions, institutions, personages, influences, etc., of the Bible. Students who enroll for these courses and comply with such requirements as may be prescribed by the Chaplain, are given credit for one-third of a course for each quarter. Attendance upon Chapel exercises is voluntary; but patrons of the University who wish the students under their charge to attend these exercises may have them enrolled by making such desire known to the University authorities.

Church Halls.

Several religious denominations have manifested an active interest in the question of establishing church halls in Morgantown for the purpose of providing homes for students during their stay in the University.

One such hall has been in operation for three years, the Episcopal Hall, founded by Rt. Rev. Geo. W. Peterkin, Bishop of West Virginia. Committees representing several other denominations have under advisement the founding of halls of a similar nature, or intended to accomplish the same purpose.

The Episcopal Hall.

The Episcopal Hall was established in 1895 by Bishop Peterkin to provide a home for young men studying for the ministry under his direction, and for any other students of the University who may choose to reside there. He did this in preference to establishing a separate church college, which would have necessitated the duplication of the plant already established at the University. The Hall is a comfortable, home-like building of forty rooms, heated by steam and lighted by electricity, under the care of a warden, who is an Episcopal clergyman, and resides in the Hall. The primary object of the Hall is

to secure for the student not only the attractive corporate side of college dormitory life, but also some of the comforts of home life.

The charge for board and room per month of thirty days is $16.00. A student may obtain the right to room alone by paying $18.00 a month.

Special Course for Candidates for the Ministry.

In response to the suggestion of Bishop Peterkin, a short course of studies is provided for young men residing in the Episcopal Hall who are looking forward to admission to the Theological Seminary at Alexandria, Va. Though following the canonical requirements of the Episcopal Church for those desiring to be admitted candidates for priest's orders, who have not obtained a degree in Arts at some university or college, it may be found of use to others of other churches who have neither the time nor the means to take the full course leading to a degree. Young men under twenty are advised to pursue the regular classical course, which gives them a better foundation for after work, and this partial course is intended chiefly for those maturer students whose early advantages have been limited, and whose time or means are restricted. Besides the subjects mentioned here, it would be well for such students to elect as much other work as possible,—the whole course to be from one to three years in length, according to the previous preparation of the student. The outline of appointed studies is given below, the details, hours, etc., being left, so far as students in the Episcopal Hall are concerned, to the judgment of the Warden, in consultation with the different professors.

I. The English Language and Literature.
II. At least the first principles and general outlines of:
    (1) Logic.
    (2) Rhetoric.
    (3) Philosophy.
    (4) Physics.
    (5) History.
    (6) The Latin and Greek Languages.

University Fees.

Except in the School of Music and in the department of Drawing and Painting, tuition is free to West Virginia students.

The tuition charged students from other states is:

$5.00 per quarter in the Preparatory School.
$5.00 per quarter in the Commercial School.
$8.00 per quarter in the College of Law.
$12.50 per quarter in the other colleges.

The matriculation fee is $5.00, payable upon entering the University by all students except cadets and those whose work is exclusively in Music or Art. Unless a student remains out of the University more than three years, the matriculation fee is paid but once by each student.

The contingent fee is $2.00 per quarter, payable at the beginning of the quarter by all students except cadets and those whose work is exclusively in Music or Art.

The diploma fee is $5.00, payable upon graduation by all students. This fee is to cover the cost of the diploma.

Students in laboratory courses in Chemistry and Anatomy pay the following fees, to cover the cost of material used:

$2.00 per quarter in General Chemistry.

$6.50 per quarter in Analytical Chemistry.

$5.00 per quarter in Anatomy.

The School of Music and the department of Drawing and Painting are partly supported by the special fees charged. These fees are moderate, and are set forth in connection with the announcements of these departments.

Board and Lodging.

Board and lodging together may be obtained in Morgantown for $3.00 per week. Most students, however, pay from $3.25 to $3.50 per week. Furnished rooms may be obtained in private families at from $1.00 to $1.25 per week. Board in students' clubs costs from $2.00 to $2.50 per week; in private families, from $2.50 to $3.00.

Estimated Expenses for a Year of Nine Months.

Room rent	$36.00 to	$ 45.00
Board	72.00 to	108.00
Washing	9.00 to	13.00
Text-books	8.00 to	30.00
Contingent fees	6.00 to	6.00
	$131.00	$202.00

To this estimate must be added matriculation and tuition fees, in the case of students who are required to pay them, and also traveling expenses, clothing, and miscellaneous expenses, which depend largely upon the tastes and habits of individual students.

Text-books are kept for sale in the University book room, and are furnished to students at cost.

State cadets are furnished their text-books, stationery and uniforms free, and are exempt from the payment of matriculation and contingent fees.

Approved Boarding and Rooming Places.

Hereafter a committee of the faculty will have general oversight of the question of boarding and rooming, and will not only help the students to find desirable places, but will see that no student rooms or boards at an objectionable place. At present the Committee on Approved Boarding and Rooming Places consists of Professors Armstrong, Fast and Whitehill.

Students in search of rooms or boarding places and proprietors of lodging or boarding houses are requested to confer with the members of this committee, who will prepare and publish regularly a list of approved boarding and rooming places for students.

Accredited Preparatory Schools.

The University is a part of the public school system of the State, and desires that its relations with the other parts of the system be as close and intimate as possible. The Faculty Committee on Accredited Schools consists of Professors Hodges, Miller and Woolery. Upon recommendation of this committee, the faculty has placed a few schools on the accredited list, and certificates from these schools will be accepted by the University in place of entrance examinations in subjects upon which students have passed at the accredited schools. School superintendents, principals, or boards, desiring to have their schools placed on the accredited list, should make application to Professor Thomas E. Hodges, Chairman of the Committee on Accredited Schools, and the application will receive prompt and careful attention. Approved secondary schools outside West Virginia will, upon application, be placed on the accredited list on the same conditions as West Virginia schools. Students who come to the University from accredited schools are required to present certificates indicating the work they have completed.

The list of accredited schools at present is as follows:

Marshall College State Normal School, Huntington, L. J. Corbly, Principal.

West Liberty State Normal School, W. B. Cutright, Principal.

Fairmont State Normal School, J. Walter Barnes, Principal.

Glenville State Normal School, W. J. Holden, Principal.

Shepherd College State Normal School, Shepherdstown, A. C. Kimler, Principal.

Athens State Normal School, George M. Ford, Principal.

Lee Military Academy, Lewisburg, James M. Lee, Principal.

Barboursville College, Barboursville, Rev. Dr. Z. Meeks, President.

Broaddus Classical Institute, Clarksburg, Miss Bertha B. Stout, Principal.

Huntington High School, U. S. G. Anderson, Principal.
Martinsburg High School, C. H. Cole, Principal.
Hinton High School, R. E. Lowe, Principal.
Allegheny Collegiate Institute, Alderson, Rev. W. S. Anderson, Principal.
New Martinsville High School, B. H. Hall, Principal.
Pittsburg, Pa., High School, C. B. Wood, Principal.
Uniontown, Pa., High School, Lee Smith, Principal.
Hanover, Pa., High School, A. J. Harbaugh, Principal.
Central Manual Training School, Philadelphia, Pa.
Pittsburg Academy, Pittsburg, Pa., J. Warren Lytle, Principal.

Matriculation and Registration.

Before being admitted to any classes, students matriculate at the President's office, room 10, Science Hall. All students are required to register once every year.

THE UNIVERSITY LIBRARY.

Library Committee.

JEROME HALL RAYMOND, Ph.D., President of the University.

ELIZA JANE SKINNER, Librarian.

ROBERT ALLEN ARMSTRONG, A.M., Professor of English Literature.

POWELL BENTON REYNOLDS, D.D., Professor of Philosophy.

SAMUEL B. BROWN, A.M., Professor of Geology and Mineralogy.

WILLIAM SLEEPER ALDRICH, M.E., Professor of Mechanical Engineering and the Mechanic Arts.

THOMAS CONDIT MILLER, A.M., Professor of Pedagogy.

ALFRED JARRETT HARE, A.B., Professor of the Latin Language and Literature.

FREDERIC WILLIAM SANDERS, Ph.D., Professor of European History.

RICHARD ELLSWORTH FAST, LL.B., A.M., Professor of American History and Political Science.

Library Staff.

ELIZA JANE SKINNER, Librarian.

ANNA BANCROFT WHITE, B.S., Assistant.

FRANCIS ALOYSIOUS HAUBER B.S., Assistant.

Library and Reading Room.

The Library is open from 7.45 A. M. to 10 P. M. every day except Sunday throughout the year. It is open Sunday from 2 to 5 P. M. for reading only.

All officers and students in all departments of the University have free access to the Library, and may draw books for home use. Two volumes may be taken out at a time and retained for two weeks. Upon request of instructors, books used as collateral reading in University courses are reserved for use in the Library.

Students have free access to the shelves, and are urged to avail themselves of the opportunity thus offered to become familiar with the standard works in each department of learning.

The Library may be consulted by all persons, whether connected with the University or not, and, under special regulations, the privilege of borrowing books is extended to those not connected with the University.

The work of reorganization is practically finished. The Library is classified by the Dewey decimal system of classification. A temporary author list and a card shelf list are of great assistance in the regular work of the Library during the slow process of the making of the card catalogue.

The Library contains about 13,000 volumes, exclusive of unbound pamphlets and duplicates. Of this number, 1,000 volumes have been added during the past year.

By classes the number of bound volumes is as follows:

General works	700
Philosophy	300
Religion	500
Sociology	850
Philology	220
Natural Science	1,650
Useful Arts	1,400
Fine Arts	180
Literature	2,500
History (including Biography)	2,200
Government publications	2,500

Bibliographic aids have been added, and the attendants in charge are ready at all times to give assistance in research and investigation. The value to the University student of a knowledge of the proper use of books is inestimable. It is the aim to develop this line of instruction, and to make the Library the attractive working center of the University.

The reading room occupies a part of the room devoted to the Library, and is provided with the current newspapers and periodicals, both general and technical. The periodical list includes about seventy-five of the best magazines and papers, and twenty-five county papers. The room is well lighted, and is free to all who care to use it.

The University has no greater need than that of a new Library building. An appropriation for this purpose was made by the last Legislature, and plans are under consideration. It is expected that the new building will be ready for occupancy during the summer of 1900.

THE COLLEGE OF ARTS AND SCIENCES.

Staff of Instruction.

JEROME HALL RAYMOND, Ph.D., President of the University, and Professor of Economics and Sociology.

ROBERT ALLEN ARMSTRONG, A.M., Vice-President of the University, and Professor of English Literature.

POWELL BENTON REYNOLDS, D.D., Chaplain of the University, and Professor of Philosophy.

ALEXANDER REID WHITEHILL, Ph.D., Professor of Chemistry.

JAMES WILLIAM HARTIGAN, A.M., M.D., Professor of Biology.

SAMUEL B. BROWN, A.M., Professor of Geology and Mineralogy.

THOMAS CONDIT MILLER, A.M., Professor of Pedagogy.

JAMES SCOTT STEWART, M.S., Professor of Mathematics.

ROBERT WILLIAM DOUTHAT, Ph.D., Professor of the Latin Language and Literature.

THOMAS EDWARD HODGES, A.M., Professor of Physics.

LEWIS CASS WOOLERY, A.M., Professor of the Greek Language and Literature.

FREDERIC WILLIAM SANDERS, Ph.D., Professor of European History.

RICHARD ELLSWORTH FAST, LL.B., Ph.B., Professor of American History and Political Science, and Acting Professor of Military Science and Tactics.

FREDERICK WILSON TRUSCOTT, Ph.D., Professor of Germanic Languages and Literatures.

KENNETH McKENZIE, Ph.D., Professor of Romance Languages and Literatures.

CHARLES HENRY PATTERSON, A.M., Professor of Rhetoric and Elocution.

DANIEL WEBSTER OHERN, A.B., Assistant in Greek.

ARTHUR LEE POST, A.B., Fellow in Chemistry.

ROBERT MORRIS, A.B., Fellow in Economics.

CHARLES FENTON HOLDEN, Fellow in English Literature.

ALLEN WILSON PORTERFIELD, Fellow in German.

CHARLES CLEAR BALLARD, Fellow in Romance Languages.

SIMEON CONANT SMITH, A.B., Fellow in Rhetoric and Elocution.

Courses and Degrees.

The College of Arts and Sciences offers:

I. Four undergraduate courses, each requiring usually four years for completion, as follows:

1. The Classical Course, leading to the degree of Bachelor of Arts (A.B.). In this course special attention is paid to the study of the Latin and Greek Languages and Literatures.

2. The Scientific Course, leading to the degree of Bachelor of Science (B.S.). The characteristic of this course is the study of Natural Science and Mathematics.

3. The Philosophical Course, leading to the degree of Bachelor of Philosophy (Ph.B.). In this course only one of the classical languages is required, and the time gained by the omision of the other is devoted to the study of Natural Science, Philosophy, and the Modern Languages and Literatures.

4. The Modern Literature Course, leading to the degree of Bachelor of Letters (B.L.). Neither of the classical languages is required in this course, and only one quarter's study of Mathematics. Emphasis is laid upon the study of Modern Languages and Literatures.

II. The Premedical Course, requiring two years for completion. This course does not lead to any degree, but admits to advanced standing in leading medical colleges. Chemistry, Anatomy and Physiology are the characteristic studies of this course.

III. Graduate courses leading to the degrees of Master of Arts, Master of Science, Master of Philosophy, and Master of Letters. These degrees are conferred only upon students who have previously received the degrees of Bachelor of Arts, Bachelor of Science, Bachelor of Philosophy, and Bachelor of Letters, respectively, and who, after graduation, have pursued an approved course of study for one year at the University, and present a satisfactory thesis upon some subject connected with the principal study pursued.

Requirements for Admission.

Candidates for admission must be at least fifteen years of age, and must present satisfactory evidence of good moral character. They must bring credentials from their last instructor, or from the last institution with which they were connected.

Graduates from the academic courses of the state normal schools, and from approved high schools and preparatory schools, will be admitted without further examination, and permitted to enter upon such undergraduate work as the preparatory studies contemplated.

The University will honor the diplomas and certificates of those preparatory schools only which conform their work to the requirements here set forth.

Unless admitted on diploma or certificate, every undergraduate candidate for a degree from West Virginia University is, before entering college, required to pass examinations upon the subjects here set forth as preparatory to the course which he has chosen.

Classical Course.

The subjects on which applicants for admission to the Classical Course will be examined are as follows:

1. History:

(a) General History—Myers, or an equivalent;
(b) United States History,—Fiske, or an equivalent.

2. English:

(a) Spelling, punctuation, capitalization and paragraphing;
(b) The leading facts of English grammar;
(c) Composition,—ability to write good English;
(d) Literature:

PART I. READING.—A certain number of books are set for reading. The candidate will be required to present evidence of a general knowledge of the subject-matter, and to answer simple questions on the lives of the authors. The form of examination will usually be the writing of a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number—perhaps ten or fifteen—set before him in the examination paper. The treatment of these topics is designed to test the candidate's power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. In place of a part or the whole of this test, the candidate may present an exercise book, properly certified by his instructor, containing compositions or other written work done in connection with the reading of the books.

The following are the books for the next three years:

1899: Dryden's "Palamon and Arcite;" Pope's "Iliad," Books I, VI, XXII, and XXIV; The "Sir Roger de Coverley Papers" in the *Spectator;* Goldsmith's "The Vicar of Wakefield;" Coleridge's "Ancient Mariner;" De Quincey's "The Flight of a Tartar Tribe;" Cooper's "Last of the Mohicans;" Lowell's "Vision of Sir Launfal;" Hawthorne's "The House of the Seven Gables."

1900: Dryden's "Palamon and Arcite;" Pope's "Iliad," Books I, VI, XXI, and XXII; Goldsmith's "The Vicar of Wakefield;" Scott's "Ivanhoe;" De Quincey's "The Flight of a Tartar Tribe;" Cooper's "Last of the Mohicans;" Tennyson's "The Princess;" Lowell's "Vision of Sir Launfal;" The "Sir Roger de Coverley Papers" in the *Spectator.*

1901: Scott's "Ivanhoe;" Pope's "Iliad," Books I, VI, XXII, and XXIV; the "Sir Roger de Coverley Papers" in the *Spectator;* Goldsmith's "The Vicar of Wakefield;" Cooper's "The Last of the Mohicans;" Tennyson's "The Princess;" Coleridge's "Ancient Mariner;" Eliot's "Silas Marner;" Shakespeare's "The Merchant of Venice."

Part II. Study and Practice.—This part of the examination presupposes the thorough study of each of the works named below. The examination will be upon subject-matter, form and structure.

The books for this part of the examination for the next three years will be:

1899: Shakespeare's "Macbeth;" Milton's "Paradise Lost," Books I and II; Burke's "Speech on Conciliation with America;" Carlyle's "Essay on Burns."

1900: Shakespeare's "Macbeth;" Milton's "Paradise Lost," Books I and II; Burke's "Speech on Conciliation with America;" Macaulay's "Essays on Milton and Addison."

1901: Shakespeare's "Macbeth;" Burke's "Speech on Conciliation with America;" Macaulay's "Essays on Milton and Addison;" Milton's Minor Poems: "Lycidas," "Comus," "L'Allegro," and "Il Penseroso."

3. Mathematics:

(a) Arithmetic completed;
(b) Algebra to Logarithms,—Wells' University Algebra, or an equivalent;
(c) Plane Geometry,—Wells, or an equivalent.

After July 1, 1900, Solid Geometry will also be required.

4. Elementary Science:

(a) Physical Geography;
(b) Human Anatomy and Physiology;
(c) Physics;
(d) Botany.

The course in each to be not less than one term of twelve weeks, five recitations a week.

5. Latin:

(a) Grammar and Elementary Book,—Chase and Stuart, or an equivalent;
(b) Cæsar,—four books;
(c) Cicero,—five orations;
(d) Virgil,—six books.

Three years of daily recitations should be given to this preparatory work in Latin.

6. Greek:

(a) White's First Book, or an equivalent;
(b) Xenophon's Anabasis,—four books;
(c) Homer's Iliad,—three books;
(d) Prose Composition,—one year.

Two years of daily recitations should be given to this preparatory work in Greek.

Scientific Course.

The requirements for admission to the Scientific Course are as follows:

(1) History, (2) English, (3) Mathematics, (4) Elementary Science, and (5) Latin, as required for admission to the Classical Course.

6. French or German:

Two years of French or German will be required for admission to this course—two years of daily recitations.

7. Drawing,—Free Hand and Instrumental:

The equivalent of five exercises a week throughout one year.

Philosophical Course.

The requirements for admission to the Philosophical Course are as follows:

(1) History, (2) English, (3) Mathematics, (4) Elementary Science, as required for admission to the Classical Course.

5. Latin or Greek:

The requirement in ancient language may be satisfied by three years of Latin or two years of Greek.

6. French or German:

The candidate who presents three years of Latin must present also two years of French or German, and the candidate who presents two years of Greek must present also three years of French or German.

A year's work, it is always understood, consists of five recitations a week throughout the year.

Modern Literature Course.

The requirements for admission to the Modern Literature Course are as follows:

(1) History, (2) English, (3) Mathematics, (4) Elementary Science, as required for admission to the Classical Course.

5. French and German:

The requirements in foreign language may be satisfied by (1) three years of Latin and two years of Greek; or (2) three years of Latin and two years of French or German; or (3) two years of Greek and two years of French or German; or (4) two years of French and two years of German.

Modern Languages.

Students who have not had opportunity of making the preparation in Modern Languages necessary to be admitted to the courses having entrance requirements in these languages, may be admitted conditionally to the Freshman class in such courses and make up this preparatory work in the college classes.

Admission to Special Courses.

Young men under twenty-one years of age, desiring to take special courses, are required to present the same qualifications as candidates for one of the regular courses. Young men twenty-one years of age or over, and young women over fifteen years of age, who are not candidates for a degree and who wish to take special studies, will be permitted to do so upon giving satisfactory evidence that they are prepared to take the desired studies advantageously. If they subsequently desire to become candidates for degrees, or to take regular courses, they must pass the required entrance examinations.

Requirements for Baccalaureate Degrees.

For all baccalaureate degrees offered by the College of Arts and Sciences, at least forty-two full courses are required, of which thirty-six must be full courses of class exercises. The remaining six courses may be made up of synoptic lectures, chapel lectures, military or gymnastic work, or other practical exercises.

A full course in the nomenclature of these announcements means a course of five class exercises a week for one quarter, or their equivalent in laboratory or other practical work.

Candidates for degrees in the College of Arts and Sciences are not permitted to take less than three nor more than four full courses at one time; and they are not permitted to take four full courses in consecutive quarters without the permission of the Faculty.

The courses required for the various baccalaureate degrees offered by the College of Arts and Sciences are as follows:

Bachelor of Arts.

3 courses in Mathematics.
3 courses in Latin.
3 courses in Greek.
3 additional courses in either Latin or Greek.
3 courses in one Modern Language.
2 courses in Rhetoric.
1 course in the Development of the English Language.
2 courses in English Literature.
3 courses in History.
2 courses in Chemistry.
1 course in Biology.
1 Laboratory course in Science.
1 course in Psychology.
1 course in Economics.
1 course in Sociology.
1 course Thesis.

31 courses required.
11 courses elective, of which not more than six may be taken in military work, gymnastics, chapel lectures, and synoptic lectures.

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Bachelor of Science.

6 courses in Pure Mathematics.
3 courses in German.
3 courses in French.
2 courses in Rhetoric.
1 course in English Literature.
2 courses in History.
2 courses in Chemistry.
2 courses in Physics.
2 courses in Biology.
1 course in Geology.
1 course in Psychology.
1 course in Economics.
1 course in Sociology.
1 course Thesis.

28 courses required.
14 courses elective, of which not more than six may be taken in military work, gymnastics, chapel lectures, and synoptic lectures.

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Students who take their fourteen elective courses and their theses in Engineering subjects will receive in addition to the degree of Bachelor of Science a certificate indicating the character of their elective work.

Bachelor of Philosophy.

2 courses in Mathematics.
3 courses in one Classic Language.
3 courses in German.
3 courses in French.
2 courses in Rhetoric.
1 course in Development of the English Language.
2 courses in English Literature.
3 courses in History.
2 courses in Chemistry.
1 course in Biology.
1 course in Psychology.
1 course in Logic.
1 course in History of Philosophy.
1 course in Economics.
1 course in Sociology.
1 course Thesis.

28 courses required.
14 courses elective, of which not more than six may be taken in military work, gymnastics, chapel lectures, and synoptic lectures.

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Bachelor of Letters.

1 course in Mathematics.
3 courses in German.
3 courses in French.
2 courses in Rhetoric.
1 course in Development of the English Language.
3 courses in English Literature.
3 courses in History.
1 course in Political Science.
1 course in Biology.
1 course in Chemistry.
1 Laboratory course in Science.
1 course in Psychology.
2 courses in Economics.
1 course in Sociology.
1 course Thesis.

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25 courses required.
17 courses elective, of which not more than six may be taken in military work, gymnastics, chapel lectures, and synoptic lectures.

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Premedical Course.

Students who intend to study medicine are advised to take the regular four years Scientific Course before entering upon their medical work. For those who cannot do this, the Premedical Course has been arranged. The requirements for admission to this course are:

1. English, as required for admission to the Classical Course.
2. Elementary Science:
   (a) Physical Geography;
   (b) Human Anatomy and Physiology;
   (c) Physics;
   (d) Botany.

The course in each to be not less than one term of twelve weeks, five recitations a week.

3. Latin, one year of daily recitations.

Students who have not had opportunity to complete these preparatory studies before coming to the University, may take them in the Preparatory School at Morgantown, either before entering upon the regular Premedical Course or while taking some of the Premedical studies.

The Premedical Course has been one year in length up to the present time, and students who have completed it have been given certificates which admitted them to the second year in the course leading to the degree of M.D. at the following institutions:

Miami Medical College, Cincinnati, Ohio.
Medical Department, University of Ohio, Cincinnati, Ohio.
Barnes Medical College, St. Louis, Mo.
Medical College of Western Pennsylvania, Pittsburg, Pa.
Baltimore Medical College, Baltimore, Md.
College of Physicians and Surgeons, Baltimore, Md.
Medical Department, University of Maryland, Baltimore, Md.
Eclectic Medical Institute, Cincinnati, Ohio.
Southern Homœopathic Medical College, Baltimore, Md.
Starling Medical College, Columbus, Ohio.
Jefferson Medical College, Philadelphia, Pa.

Beginning October 1, 1899, the Premedical Course will be extended to include the first two years of a medical course, and it is expected that arrangements will be made whereby most if not all of the medical colleges named above will admit to the third year of their courses students who receive certificates of the completion of the two years Premedical Course in this University. Students who desire to take one year's work only in the Premedical Course may do so, and as before will be given certificates admitting them to the second year of the medical course in the above named institutions, but those who desire may now take the two years Premedical Course. The schedule of recitations and lectures is as follows:

Two Years Premedical Course.

First Year.

All classes meet five times a week.

HOUR.	FALL.	WINTER.	SPRING.
8.00	Anatomy	Anatomy	Anatomy
9.00	Chemistry	Chemistry	Chemistry
10.00	General Biology	Zoology	Zoology
11.00	Str. Botany	Field Botany	Field Botany

Second Year.

All classes meet five times a week, except Chemistry, which is Laboratory work, two afternoons a week, two hours each day.

8.00	Materia Medica	Materia Medica	Materia Medica
9.00	Pathology	Pathology and Embryology	Histology and Bacteriology
10.00	Physiology	Physiology	Physiology
1.30	Chemistry	Chemistry	Chemistry

Order of Studies.

There is no prescribed order in which a student in the College of Arts and Sciences must take the courses required. Each student will arrange with his Class Officer at the beginning of each quarter as to the courses he will take during that quarter. The Class Officer will use his judgment in the assignment of studies. It is his duty to see that each student under his charge takes his work in the order which will be most beneficial.

In general, however, it is expected that during the Freshman year a student in the Classical Course will take three courses in Latin, three courses in Greek, and three courses in Mathematics. In the Scientific Course, Freshmen will be expected to take three courses in Mathematics, three courses in one of the modern languages, and three courses in Physics or Chemistry. In the Philosophical Course, Freshmen are expected to take three courses in one of the ancient languages, three courses in one of the modern languages, and at least two courses in Mathematics. In the Modern Literature Course, Freshmen will be expected to take at least one course in Mathematics, three courses in French or German, and three courses in History and English. The remainder of the work taken by Freshmen, as well as by students in the other classes, will be such as may be selected jointly by the student and his Class Officer, and in each case will depend upon the individual student's preparation and plans.

Suggested Partial Schedule of Studies for Freshmen and Sophomores.

Classical Course.

FRESHMAN.

HOUR.	FALL.	WINTER.	SPRING.
8.00	Greek	Greek	Greek
9.00	Latin	Latin	Latin
10.00	Algebra	Solid Geometry	Trigonometry

SOPHOMORE.

11.00	Rhetoric	Rhetoric	General Survey of English Literature

Scientific Course.

FRESHMAN.

9.00	Chemistry	Chemistry	
10.00	Algebra	Solid Geometry	Trigonometry
11.00	French	French	French

Scientific Course—Continued.

SOPHOMORE.

HOUR.	FALL.	WINTER.	SPRING.
8.00	Analytical Geometry	Calculus	Calculus
10.00	Physics	Physics	
11.00	Rhetoric	Rhetoric	General Survey of English Literature

Philosophical Course.

FRESHMAN.

9.00	Latin	Latin	Latin
10.00	Algebra	Solid Geometry	
11.00	French	French	French

SOPHOMORE.

11.00	Rhetoric	Rhetoric	General Survey of English Literature

Modern Literature Course.

FRESHMAN.

8.00	History	History	
10.00	Development of the English Language	Solid Geometry	
11.00	French	French	French

SOPHOMORE.

11.00	Rhetoric	Rhetoric	General Survey of English Literature

Special Electives.

A certain amount of credit is allowed toward baccalaureate degrees for work in Music, Physical Training, Military Science and Tactics, Drawing and Painting, Elocution, Law, Engineering, and Agriculture.

Music.

1. A candidate for the degree of Bachelor of Arts or Bachelor of Science may elect three courses in Music to be credited toward the degree.

2. A candidate for the degree of Bachelor of Philosophy may elect five courses in Music to be credited toward the degree.

3. A candidate for the degree of Bachelor of Letters may elect six courses in Music to be credited toward the degree.

4. At least two of the courses in Music for which credit is given must be in the Science of Music—that is, in Harmony, or in Counterpoint, or in the Theory of Music, or in Analysis.

5. No credit toward degrees will be given for the first three courses in Piano, Violin or other stringed instruments, or Voice.

Physical Training.

1. The regular class in Physical Training for men meets in the Gymnasium at four o'clock Tuesdays and Thursdays, and nine o'clock Saturdays. Other sections are organized when necessary. The regular class in Physical Training for lady students meets at four o'clock Mondays, Wednesdays, and Fridays. Young men in the College of Arts and Sciences are required to take at least two years of Physical Training, unless they have previously had it in the Preparatory School, or are members of the Cadet Corps, or are excused for satisfactory reasons. For lady students, the Physical Training is entirely elective.

2. When Physical Training is taken either as required or elective work by candidates for degrees in the College of Arts and Sciences, and performed in a manner satisfactory to the Instructor in Physical Training, each quarter's work is credited as one-third of a course, provided that no student shall receive credit for more than four full courses in Physical Training during his college course.

Military Science and Tactics.

1. The regular hour for military work is from four to five o'clock Mondays, Tuesdays, Wednesdays, and Thursdays. This work is both practical and theoretical. Membership in the Cadet Corps is entirely elective, but when students elect to enter the corps they enlist for a period of two or four years. Students who enlist for two years only may resign at the end of the first year if they expect to leave the University, but students who intend to remain at the University may not resign until the end of the second year.

2. When the work in Military Science and Tactics is taken by candidates for degrees in the College of Arts and Sciences, and is done in a manner satisfactory to the Commandant of Cadets, each quarter's work is credited as a half course.

Drawing and Painting.

Candidates for degrees in the College of Arts and Sciences in all courses may elect and receive credit for two courses in Drawing; and students in the Modern Literature Course may, in addition, elect and receive credit for a third advanced course in Drawing or one course in Painting; but no college credit is given for Course 1 in Drawing, which is prerequisite to all other courses in Drawing.

Elocution.

Candidates for degrees in the College of Arts and Sciences in all courses may elect and receive credit for courses in Elocution; but no college credit will be given for the first course in Elocution.

Law.

Candidates for degrees in the College of Arts and Sciences may elect and receive credit for the following courses, given in the College of Law:

Constitutional Law;
International Law;
Blackstone;
Evidence.

Engineering.

Any student taking the regular Scientific course may be allowed to count Engineering studies and work among his electives. All such Engineering electives shall follow their regular sequence as required in the regular Engineering courses, and shall have as full and regular count in making up any future work leading to Engineering degrees as if they had been originally taken in the course for such degree. In no case of such substitution of Engineering electives shall it result in the student having fewer than fourteen hours of class room recitations weekly each year of his course.

Agriculture.

Candidates for degrees in the College of Arts and Sciences may elect and receive credit for four of the following ten courses given in the College of Agriculture:

Entomology;
Economic Botany;
Horticulture;
Agricultural Chemistry;
Agricultural Science;
Forestry;
Veterinary Science;
Stock breeding;
Stock feeding;
Plant breeding.

Special Rules and Regulations.

Classification and Promotion.

1. No student shall be classified as a Freshman who is conditioned in more than three Preparatory courses.

2. No student shall be classified beyond the Freshman Class until all Preparatory conditions are removed.

3. No student shall be classified as a Sophomore who has not received credit for at least seven and a half college courses.

4. No student shall be classified as a Junior until he has received credit for at least nineteen college courses.

5. No student shall be classified as a Senior until he has received credit for at least thirty college courses.

Removal of Conditions.

It shall be the duty of every college Class Officer to assign to his students who may have Preparatory conditions, the work necessary to remove those conditions before making assignments of college work.

Maximum Work.

Students who are carrying four full courses, in accordance with the regular rule or by special permission of the Faculty, shall not receive credit for fractional courses in addition thereto; provided, however, that any student may receive credit for the fractional courses offered in chapel lectures, or Military or Physical Training Departments in addition to his other work.

Grades and Standing.

1. Every Class Officer shall, immediately after the end of every quarter, report in writing to the Faculty the name of every student under his charge, if any, who has failed to attain the minimum average grade required by the rules of the Faculty, together with a list of the studies pursued by each student during the quarter, the grades attained in each, and the conditions in each study, if any.

2. Any cadet, who upon the aggregate of all his studies during any quarter, shall fail to attain the minimum average of seventy upon a scale of one hundred, shall forfeit his cadetship; but such forfeiture may be relieved by order of the Faculty for good cause shown.

3. Any student, who upon the aggregate of all his studies during any quarter, shall fail to attain the minimum average grade of sixty upon a scale of one hundred, shall be suspended from the University for such time as the Faculty may designate; but such suspension may be relieved by order of the Faculty for good cause shown.

4. It shall be the duty of every instructor to report to his Class Officer the name of any student who does not appear to be doing satisfactory work in his classes, on or before the end of the first half of any quarter; and such Class Officer so notified shall consult with such student under his charge and shall take such measures as to him may seem practicable to secure from the student a better grade of work.

5. In case of a student failing to report to classes promptly at the beginning of a quarter, the following rule shall apply:

For less than one week's absence there shall be a deduction from the student's average standing of two per cent. for each exercise missed; for absence of one week or more there shall be a deduction of one-sixth of the credit in that course for the quarter for each week

missed; such deduction in standing or credit to be made by the instructor.

Provided, that in case of new students, the deduction in course credit only shall be made.

Advanced Standing.

Students from approved colleges bringing certificates of work and standing will be admitted without examination. In determining their position in the University, however, the work presented will be measured by the standards and courses of this University.

Students who have pursued studies beyond those required for admission, but not in approved colleges, may be admitted to advanced standing by passing examinations in the studies for which they ask advanced standing.

Committee on Admission and Advanced Standing.

The Committee on Admission and Advanced Standing consists of Professors Patterson, Hodges, Emory, Woolery, and Truscott. The duty of this Committee is to determine the value of credits submitted by candidates for admission or advanced standing. This Committee refers all candidates who ask for credit by examination to the instructor in the study for which credit is asked. The instructor will set an examination for such candidates and report the result to the Committee who will in turn report it to the President of the University. This Committee determines all questions as to the recognition of work done in other institutions.

DEPARTMENTS OF INSTRUCTION.

In the following announcements, unless otherwise noted, each course described is a full course, the class meeting five times a week, Mondays to Fridays inclusive, throughout one entire quarter. The quarter during which the course is given, as well as the hour and classroom, are named, whenever possible, at the end of the announcement of each course. When a course is given more than once during the year, each quarter in which it is given is named. Where the quarter is named, but not the year, it is expected that the course will be given every year during the quarter named. Where the year as well as the quarter is named the course will not be given until the year named. Where the announcement of a course is not followed by the name of the instructor it is expected that the class will be conducted by the head of the department. All courses are designated by the name of the department and the number of the particular course. Thus the first course in Psychology is known as "Philosophy 1;" the course in Dynamos and Motors is known as "Physics 10," etc. The abbreviations used are: U., University Hall; S., Science Hall; M., Martin Hall; C., Commencement Hall; A., Agricultural Experiment Station.

Philosophy.

PROFESSOR REYNOLDS AND PROFESSOR PHILLIPS,
ASSISTED BY SPECIAL LECTURERS.

1. Elements of Psychology. An introductory course devoted to the study of: (1) The intellectual processes, the feelings, and the processes of volition; (2) An outline of the structure and functions of the brain and nervous system as related to the states of consciousness and mental processes; (3) the principles and methods of mental training and the application of Psychology to education. Ladd's "Outlines of Descriptive Psychology," with lectures and notes by the instructor.

Fall, 8.00; 23 S.

2. Elements of Logic and the Principles of Science. A review of the processes of conception, judgment, and reasoning; a discussion of the nature and laws of inference, induction, and the subsidiary processes, such as observation, experiment, classification, and hypothesis; causation and the inductive method; imperfect inductions and fallacies; the elements of deduction and formal logic; a discussion of propositions and syllogisms, and of fallacies and the means of detecting them. Fowler's "Deductive and Inductive Logic," with references to Mill, Jevons, Bain, and numerous original exercises.

Winter, 8.00; 23 S.

3. Elements of Ethics. A review of the mental processes that control conduct; the fundamentals of morality, such as the moral faculty, the ground of obligation, the moral standard, the moral law, moral sanction; moral culture; practical morality, or duties personal

and social, and the ground of them. Mackenzie's "Manual of Ethics," with lectures and outlines by the instructor. Spring, 8.00; 23 S.

4. Comparative Psychology and Mental Development. An outline of physiological psychology; a study of the phases, conditions, and progress of mental phenomena and activities, from the lowest to the highest grades in both animals and man, with special application to mental training. Lectures, experiments, and references to Ladd, James, Calderwood, Baldwin, Romanes, and other authorities. Open to those who have taken Course 1, or its equivalent. Fall, 10.00; 23 S.

5. Comparative Religion. An outline of the history of the leading religions of the world; a comparison of the beliefs, forms, and practices of the different religions; the relation of religious beliefs and forms to morals, government, science, social development, and civilization generally. Menzies' "History of Religion," supplemented by lectures and collateral reading. Winter, 10.00; 23 S.

6. Comparative Ethics. An outline of the leading ethical systems; a study of the natural basis of ethics; an examination of ethical development among different peoples in different ages; the relation of ethical principles to personal morality, human rights, and the functions and duties of government and religion. Spencer's "Data of Ethics," "Inductions of Ethics," and "Justice," with lectures and collateral reading. Spring, 10.00; 23 S.

7. History of Ancient Philosophy. An outline of the history of the leading ancient philosophers and schools; a summary and discussion of the tenets of the leading philosophers and systems, metaphysical, cosmological, psychological, theological, physical, and ethical, with their influence upon religion, morals, government, and science. Lectures, with references to the works of Windelband, Ueberweg, Erdmann, and the encyclopædias. Fall, 12.00; 23 S.

8. History of Mediæval Philosophy. The scope and methods of this course will be the same as in Course 7, but special attention will be given to the influence of Christianity upon Philosophy and *vice versa,* and the rise and character of Christian and Patristic Philosophy. Winter, 12.00; 23 S.

9. History of Modern Philosophy. The scope and methods of this course will be substantially the same as in Courses 7 and 8, but special attention will be given to the theory of evolution,—an outline of the history of the theory from the earliest times to the present, and a discussion of its phases, content, position, and influence, especially upon science, morals and religion. Spring, 12.00; 23 S.

10. Psychology. (a) Modern development of Psychology; its results and problems; value to students and teachers. (b) Structure, growth, and development of the human brain; periods of growth; relation to intelligence; localization of function. (c) Topical study of

Instinct, Memory, Association, Attention, Feeling, Hypnotism, Comparative Psychology, Reviews of latest literature on these topics, with lectures. In connection with this course, besides the general scientific articles, the following books will be found valuable: Wundt's "Outlines of Psychology," Horsley's "Structure of the Nervous System," Donaldson's "Growth of the Brain," Wundt's "Human and Animal Psychology," Morgan's "Habit and Instinct," Ribot's "Psychology of the Emotions." James' "Psychology" (two-volume edition) treats most of the points. Professor Phillips. Summer, 10.00; 23 S.

11. Development of Philosophical Thought along Ethical Lines. Influence of Greek thought; Stoic and Epicurean theories; Kant's idea of duty; conflict of duties; psychological basis of morals and ethics; the late view of altruism and egoism as presented by Kidd, Drummond, Weismann, and Cope. Probably some good text may be used as a guide, such as Murray's "Introduction to Ethics," or Hyslop's "Ethical Problems." Evans' "Evolutional Ethics and Animal Psychology" will be found suggestive, also Paulson's "Introduction to Philosophy."

Professor Phillips. Half course. Second term, Summer, 11.00; 23 S.

12. Studies in Ethics. A series of twelve lectures by Dr. D. B. Purinton, President of Denison University.

(a) Abnormal Consciousness (Hypnotism and Multiple Consciousness).
(b) Ethics of College Life.
(c) Conscience.
(d) Ultimate Rule of Right.
(e) Abnormal Consciousness (Clairvoyance, Telepathy, Thought Transference).
(f) Moral Medicine.
(g) Remembering and Forgetting.
(h) Ethics of the State.
(i) Is the Will Free?
(j) Ethics of the State.
(k) Ethics of the State.
(l) Great Deeds of Young Men.

One-third course. Tuesday, July 25, to Thursday, August 4.

Pedagogy.

PROFESSOR MILLER AND PROFESSOR PHILLIPS,
ASSISTED BY SPECIAL LECTURERS.

If not already recognized as such, teaching is more nearly a profession to-day than ever before. Not long ago the one requisite of a teacher was thought to be a knowledge of his subject. Now it is believed that ability to teach well depends almost as much upon method and skill as upon one's knowledge of subject-matter. The successful teacher is

somewhat acquainted with the natural order of development of the human mind; he realizes that there is a great difference between mere *telling* and *teaching*, and that he must assist the pupil in bridging the chasm between the known and the related unknown by both inductive and deductive processes. He uses the doctrine of interest and the laws of association as they stand related to educational methods, and in many ways that suggest themselves after a careful study of the subject he utilizes his pedagogical knowledge. Hence there is a growing conviction that teaching is a science, and that it demands as thorough professional training as law, medicine, or theology.

Furthermore, Pedagogy is now recognized as possessing a culture value along with its practical and disciplinary value. It is a helpful study for all classes of students. The student who gives to this subject the same careful attention that is accorded to other branches will be surprised and delighted with the broad and attractive field that opens before him. The progressive citizen needs to keep in touch with the trend of educational affairs, so that he may be able to aid in the proper training of youth, for there is no problem before the American people to-day of more importance than this one of character-building through the agency of the public school.

In providing instruction in Pedagogy the University aims to supplement and enlarge upon what has already been done in the normal schools. While the pedagogical courses are open to all collegiate students, it is suggested that they will prove of greatest value to those who are somewhat advanced in their studies. The aim, then, in offering these courses is:

1. To give to students opportunities for broader culture by a study of the history and science of Education;

2. To aid in harmonizing our state educational system by bringing the secondary schools into closer relations with the University;

3. To prepare young men and women for the higher positions in the schools of the state. Many of the best educational positions in West Virginia are now filled by graduates of the University, and there is an increasing demand, here and elsewhere, for teachers competent to take charge of schools of high grade. Encouragement to instructors with this degree of proficiency is found in the fact that salaries have been increased very materially within the last few years.

1. History of Education. (a) Education in West Virginia, embracing a discussion of the General and the Irreducible School Fund, the Independent District, the County as a Unit of Taxation, and the Central High School. (b) Education in the United States. Morgan and Cork's "History of Education in West Virginia;" Boone's "History of Education in the United States."

Summer, 8.00; Fall, 10.00; 23 S.

2. Educational Psychology. The human faculties, their laws of development; the relation between Psychology and Pedagogy; physical

basis of education; laws of association and apperception; the feelings and the will; conception, judgment, and reason; character-building. White's "Elements of Pedagogy;" McClellan's "Applied Psychology."

Summer, 9.00; Winter, 10.00; 23 S.

3. School Organization and Management. This course will include grading and classifying schools, courses of study, use of text-books, discipline, examinations, proper incentives, school ethics, and many other features of practical pedagogics. "State Manual" and Raub's "School Management," supplemented by lectures, papers, and discussions. Summer, Spring, 10.00; 23 S.

4. The Science of Education. Educational theory; the basis of school systems and methods; "What knowledge is of most worth?" Educational values; the practical, the disciplinary, the culture value. Recitations, discussions, lectures and essays. Payne's "Contributions to the Science of Education;" Hinsdale's "Studies in Education."

Spring, 8.00; Fall, 9.00; 23 S.

5. Methods of Instruction. The art and science of teaching; general methods, special methods; school-room practice; the recitation and the written exercise; elementary science teaching in secondary schools; the teaching of History, English and Mathematics. Discussions, readings, critiques. De Garmo's "Essentials of Method;" Putnam's "Manual of Pedagogics." Spring, Winter, 9.00; 23 S.

6. Educational Epochs and Reformers. Pestalozzi, Froebel, Rousseau, Herbart, Horace Mann, Spencer, Rein, W. T. Harris, and Stanley Hall. No great movement can be thoroughly understood until we study the conditions which led to its development. Educational history is the history of ideas. The life and work of a reformer is a benediction upon the ages that follow. Biographies, critiques, and lectures. Quick's "Educational Reformers;" The Great Educator Series. Winship's "Horace Mann," and other literature of the subject.

Fall, 8.00; 23 S.

7. School Buildings and Sanitation. Location of buildings, school grounds, lighting, heating, ventilation, sewerage, furniture, apparatus, and equipment. Illustrations of modern school architecture. Discussions and investigation with reference to the best conditions for district and city schools. A very important course for superintendents and school officers. The general literature of the subject found in the pedagogical library will be studied.

Half course. First term, Summer, Spring, 2.00; 23 S.

8. School Supervision. State, county, city and district supervision. The relation of the superintendent to parents and patrons, to the Board and to his teachers; his authority and his moral influence in the community; school visitation and discipline; teachers' meetings, school reports, and general administrative duties. Payne and Pickard on Supervision. Half course. Second term, Summer, Spring, 2.00; 23 S.

9. The History of Education. From the anthropological, biological, psychological, and historical standpoints. Development of Education in its connection with civilization and religion. Students to use for reference study such works as Chamberlain's "Child in Folk-Thought," Letourneau's "L'Evolution de l'Education," Painter's "History of Education," Compayré, etc. A series of lectures will be given, setting forth the fundamental ideas of "The Republic," "The Great Didactic," "Emile," and Spencer's "Education."

Professor Phillips. Half course. First term, Summer, 8.00; 23 S.

10. The Science of Education. Educational theories—Herbartianism, Hegelian Ideas in Education, Doctrine of Interest, Apperception, Scientific and Humanistic Studies, Educational Values, Biological and Neurological Aspects of Education. Lectures on modern reformers in education—Mann, Rein, Ziller, W. T. Harris, G. Stanley Hall, President Eliot. References: De Garmo's "Herbart and Herbartians," Dr. Harris' "Psychologic Foundations of Education," McMurry's "General Method," Payne's "Science of Education," Page's

ishment, Children's Drawings, Children's Lies. (b) The Kindergarten. Inferences drawn from personal study of a number of kindergartens; its effect on later school work; its modern movements; estimate of Froebel's general principles. (c) Modern Developments in Methods. Science teaching in the grades, nature study, Speer system of arithmetic, art and music as taught in the grades, examinations and promotion, changes in school discipline, comparative systems of education. The best material for this course is to be found in articles contributed to various journals from time to time.

Professor Phillips. Half course. First term, Summer, 11.00; 23 S.

12. Educational Topics. A course of synoptic lectures on the following subjects:

(a) A Survey of Child Study.
(b) Kindergarten Teaching.
(c) Sunday School Teaching.
(d) Education of the Heart and Intellect.
(e) Seven Sins of Teachers.

(f) The Common Quality of Great Teachers.
(g) The End of Intellectual Striving.
(h) The Intellectual and Moral Value of Psychology to Students.
(i) Late Developments in the Study of Memory.
(j) Some Fairly Well Established Principles in Psychic Life.

Professor Phillips. One-third course. Summer, Mondays, 8.00 P. M.; C.

13. Southern Education. Three lectures by Dr. Charles W. Dabney, President of the University of Tennessee.

8.00 P. M., Tuesday, Wednesday and Thursday, August 8, 9 and 10; C.

20. Seminary. Discussion of current educational topics and various features of pedagogical science; child study, and original investigation by laboratory methods, as far as such investigation is possible with the means at command. Half course, each quarter. 3.00; 23 S.

Sociology

reference to the social institutions of various peoples. The physical and mental differences of races are discussed; the various peoples of the world are classified; and the most important ethnographic problems are considered. Keane's "Ethnology" is used by the class, supplemented by lectures and the investigation of [illegible] topics. Prerequisite, Anthropology. Winter, 8.00; 10 S.

3. Elements of Sociology. A course on the structure and functions of contemporary society. Existing society is studied as an objective reality, the student's own world being his laboratory. The course begins with a series of elementary lectures on the methods of scientific social study; the relation of the individual to society; the social organism; the physical and psychical bases of society; the social forces; the field of sociology and its relation to social reform. Meanwhile the individual members of the class have been assigned certain social institutions for personal observation and study, upon which they report fully in the class. The purpose is to bring out prominently the leading fea-

tures in the associated life of human beings as it actually exists. Lectures, assigned readings and reports. Prerequisites, Anthropology and Economics 1 and 2. Spring, 8.00; 10 S.

4. A Historical Survey of Sociological Thought. This course traces the gradual development of sociological thought from antiquity through the Hebrew, Greek, Roman, and mediæval writers down to our own times. The sociological teachings of a few classical writers, as Plato, Aristotle, and Cicero, are considered as types of ancient sociological thought. Mediæval thought is briefly discussed, taking writers like St. Augustine and St. Thomas Aquinas as types, with a view to explaining the slow growth of Sociology. The later developments of sociological thought are treated at greater length, the larger part of the course being devoted to the teachings of the most important modern sociologists. Lectures and assigned readings. Prerequisite, Sociology 3. Summer, 1900, 8.00; 10 S.

5. Lectures on the Biological Side of Sociology. A series of lectures by Dr. David Starr Jordan, President of Leland Stanford Junior University, on the following topics:

(a) Degeneration.
(b) Drink and Race Progress.
(c) The Evolution of Mind.
(d) The Meaning of Democracy.

July 23 to 26. C.

Economics.

President Raymond, Professor Hamilton, and Mr. Morris.

1. Historical Introduction to Economics. A course in Economic History, designed to furnish a basis for the study of economic principles. The aim is to familiarize the student with the main facts in the development of modern industrial society before he begins to theorize about them. Gibbins' "Industrial History of England" will be used as a guide with supplementary assigned readings. Fall, 9.00.

3. History of Economic Thought. A sketch of the development of the Science of Economics, from the Greeks to the present day. The different schools of economic thought are considered, and special attention is given to the views of the so-called classical economists,—Adam Smith, Malthus, Ricardo, and John Stuart Mill. Ingram's "History of Political Economy," supplemented by assigned readings from the works of the authors studied. Prerequisite, Economics 2. Spring, 9.00.

4. Money and Banking. This course explains the nature and functions of money, and traces its historical evolution; the different

views as to the relation between the money supply, or the monetary policy of government, and the stability of prices, between the money supply and commercial prosperity, and their relation to the question of the obligations between debtor and creditor. The theories of bimetallism, monometallism, independent free coinage and paper fiat money will be examined, and several contemporaneous types of banking systems will be studied, including the scheme for a postal savings bank. Prerequisite, Economics 2.

Professor Hamilton. Summer, 11.00. Mr. Morris. Fall, 10.00.

5. **Public Finance,** with special reference to the financial history and conditions of the United States. The subjects considered are:

(a) Purposes of public expenditures; a brief comparison and criticism of the expenditures of leading cities and countries.

(b) An historical comparative and critical study of the theory and methods of taxation; a comparison of systems of taxation in different countries; the sources of public revenue; comparison of the merits of different kinds of taxes, particularly of taxes on property, on the manufacture and sale of commodities, on imports, on incomes, on inheritances, and on franchises; Henry George's theory; equalization of taxation. A brief summary of the important legal principles of taxation as shown by leading state and federal cases.

(c) A comparison of the public debts of leading cities and countries, and a consideration of their economic aspects. Prerequisite, Economics 2.

Professor Hamilton. Summer, 10.00. Mr. Morris, Winter, 10.00.

6. **Practical Economic Problems.** A study of proposed schemes of social reform and methods of social improvement. Trades unions, building and loan associations, insurance associations, profit sharing and co-operation. Relation of the state and the municipalities to monopolies. History of the socialistic movement and a discussion of the principles of socialism. The economic influence of education and Chris-

special reference to the origin of types of local government in the United States, embracing an outline of state and federal government. Two pieces of written work, prepared from material in the library, will be required: (a) A phase of colonial government; (b) a phase of local government. Fiske's "Civil Government in the United States."

Fall, 10.00; 6 M.

2. **The Federal Government of the United States.** A study of the workings of the government and politics of the United States, including a summary of government in general with reference to American

conditions. There will be lectures, readings from references, and three special pieces of written work: (a) A study of political methods; (b) the actual workings of some department of the national government; (c) the actual workings of some part of a state or municipal government. Prerequisites, Political Science 1, or American History 2, 3, or 4. Bryce's "The American Commonwealth;" Hart's "Revised Suggestions." Winter, 10.00; 6 M.

3. Comparative Constitutional Government. A comparative study of Greek, Roman, and Teutonic polity, of the constitutions of Great Britain, France, Germany, Switzerland, and other leading states of the world, and of the trend in the development of constitutional government. Open to advanced students only. Woodrow Wilson's "The State." Spring, 10.00; 6 M.

4. Diplomatic History of the United States. The treaty relations of the United States with foreign powers are studied in detail, including an examination of documents and methods. Prerequisites, American History 3, 4, and 5. Fall, 11.00; 6 M.

20. Seminary in Politics. This course is intended for advanced students, and consists of the special study of selected topics. Credit will be given in proportion to the work accomplished.

Fall, Winter, Spring, 4.00 to 6.00; 6 M.

Law.

Professor Johnson, Professor Brooke, and Professor Willey.

1. Blackstone. The Common Law is studied from the text of Blackstone's "Commentaries," supplemented by lectures, with references to American decisions and statutes.

Professor Brooke. Fall, 8.00; 11 U.

2. Blackstone. A continuation of Course 1.

Professor Brooke. Winter, 8.00; 11 U.

3. Blackstone. A continuation of Course 2.

Professor Brooke. Spring, 8.00; 11 U.

4. Elements of International Law. Lectures are supplemented by the study of leading cases. Professor Johnson. Spring, 8.00; 14 U.

5. Constitutional Law. This course will examine the leading principles established by the decisions of the Supreme Court. Lectures with references to the "Commentaries" of Story, Kent, and Cooley.

Professor Johnson. Winter, 9.00; 14 U.

6. Civil and Criminal Evidence.

Professor Willey. Spring, 9.00; 15 U.

7. Parliamentary Law. No College credit is given for this course.

Professor Johnson. Half course. Last six weeks, Fall, 11.00; 14 U.

Courses 1 to 7 are the same as those announced under the same names by the College of Law.

European History.

PROFESSOR SANDERS AND MISS DANIELS.

The same general method is pursued in all the courses offered in this department. The subject is developed by means of lectures, assigned readings, written reports, and oral discussions. Courses 3, 4, 5, and 6 in this department, with the courses in Anthropology and Ethnology given in the department of Sociology, are designed to present an outline of the development of human culture.

In each of these courses a chronological outline of the life of the people under discussion, during successive periods, is given generally in the form of lectures at the beginning of each week, and this is followed by a more detailed study, first of the development of the social organization as it shows itself in the (a) political and (b) religious institutions of the people, and in their (c) economic life and (d) educational ideas, and, secondly, of the development of the human mind as it shows itself in philosophy and pure science. Finally attention is directed to the art (architectural, plastic, pictorial, and literary) in which the attainments and aspirations of the people have found expression.

Courses 3, 4, and 5, are given each year, together with at least three of the courses numbered from 6 to 14, inclusive. The order in which it is proposed to give these last nine courses during the next three years is indicated below.

1. **Ancient History.** This course and Course 2 are required for admission to college. No credit is given for them toward a degree, but they are offered by this department for the benefit of those who have not had their equivalent elsewhere. Sheldon's "Studies in General History." Fall, 10.00; 4 M.

2. **Mediæval and Modern History.** See description of Course 1. Winter, 10.00; 4 M.

3. **Grecian History.** This course is introduced by a glance at the civilization of the Tigris-Euphrates valley, of the Nile valley, and of the Phœnicians and their kinsmen, the Jews, and then proceeds to trace the development of the life and thought of the Greek people, as affected by their natural environment and by these earlier civilizations, down to the fall of Grecian political independence before Rome and the fall of Greek philosophy before Christianity. An earnest endeavor is made to bring the student to see for himself in what the great contribution of Greece to civilization consists. Fall, 11.00; 4 M.

4. **The Rise and Fall of the Roman Empire.** This course traces the development of the Roman state down to the fall of the republic; the rise of Christianity; the Roman Empire and the Christian Church; the subversion of the Western Empire by the Teutonic barbarians; the rise of Mohammedanism and its spread into Southern

Europe, and the destruction of the Eastern Empire and the fall of Constantinople before the Moslems. It is hoped that the student will be led to recognize Rome's great contribution to civilization in the development of the idea of law and order as instituted for all mankind.

Winter, 11.00; 4 M.

5. Mediæval History: The Rule of the Teutons. In this course an attempt is made, first, to picture the condition of the Roman Empire in the fourth, fifth, and sixth centuries of the Christian era; next, to present the primitive life and institutions of our Teutonic ancestors; and then, with the career of the Frankish tribes as the central thread of the story, the history of Catholic Christian Europe down to the Renaissance is studied. Spring, 11.00; 4 M.

6. Modern History. This course begins with the Renaissance and brings the history of European civilization down to our own day, treating of the development of art, literature, and science; the extension of commerce and maritime adventure and the colonization of the new world; the reformation in religion, philosophy and education; the culmination of political absolutism, and the succeeding political revolution; the industrial revolution which ushered in the present century; and the new outlook upon life which results from present political, religious, and economic conditions and intellectual culture.

Spring, 1899 and 1902, 12.00; 4 M.

7. The History of England to the Accession of the Tudors.

Fall, 12.00; 4 M.

8. The History of England from the Tudor Period to the Present Time. Winter, 12.00; 4 M.

9. The History of France. Fall, 1900, 12.00; 4 M.

10. The History of Germany. Fall, 1901, 12.00; 4 M.

11. The Renaissance and Reformation.

Winter, 1901, 12.00; 4 M.

12. The History of Europe from the Reformation to the French Revolution. Winter, 1902, 12.00; 4 M.

13. The Nineteenth Century. Spring, 1900, 12.00; 4 M.

14. History of Educational Theories and Institutions. This course is introduced by a glance at education among primitive people, followed by a brief but careful study of education among the Greeks and among the Romans, and an attempt to point out the effect upon our half-civilized ancestors of the conflict between the classical ideal in education and the educational ideal of the early Christian Church as this conflict worked itself out in mediæval culture. Attention is then directed to the Renaissance and to the educational theories and practices of modern times. Spring, 1901, 12.00; 4 M.

15. The History of Rome. In this course a brief outline will be given of the development of the Roman Republic previous to the

second century. The subsequent history of the republic will be traced through a study of the following topics: the Agrarian question; the development of the Roman provincial system; the influence of Hellenism; the development of the popular and conservative parties, and the party struggles to the death of Cæsar. In the history of the empire, the following topics will be considered: the founding of the empire; Roman citizenship; provincial government; increase in the power of the army; the rise of the Christian church; economic conditions; the frontiers, and contact of the empire with the barbarians.

Miss Daniels. Summer, 11.00; 4 M.

16. History of Europe Since 1815. In order to secure an understanding of the causes and meaning of the important events of this century, attention will be given first to the conditions at the beginning of the period. The history of each country will then be traced, and the general trend and present conditions noted.

Miss Daniels. Summer, 8.00; 4 M.

American History.

Professor Fast and Miss Daniels.

1. Outlines of United States History. A general course of narrative and political history required for admission to all other courses in History. No credit will be given upon any college degree. Fiske's "History of the United States." Spring, 9.00; 6 M.

2. History of the United States. The principal object of this course is to explain the sources of our Constitution, its formation and operation; the rise of political parties and the important questions upon which they have divided; the Civil War and the period of reconstruction; recent questions and issues.

Miss Daniels. Summer, 9.00; 4 M.

3. The Colonial Period (1492-1789). Special emphasis will be laid on political and constitutional history during this period, but with some reference to social and economic conditions. Lectures, reading of selected references to sources and secondary authorities, weekly written papers, and special written work. Designed for Juniors and advanced students. Channing's "Students' History of the United States." Fall, 9.00; 6 M.

4. The Formative Period (1789-1829). Special emphasis will be laid on political and constitutional history during this period, but with some reference to social and economic conditions. Lectures and special written work in historical composition based on original investigation of sources in the library. Open to Juniors and advanced students. Channing's "Students' History of the United States."

Winter, 9.00; 6 M.

5. The National Period (1829-1889). The method of study will be the same as that indicated in Course 4. Open to Juniors and advanced students. Channing's "Students' History of the United States." Spring, 9.00; 6 M.

20. Seminary in American History. The constitutional and political history of the United States will be studied from the sources, combined with lectures and required reading in secondary authorities. Open to graduate students, and others by permission.

Spring, time to be arranged.

Greek Language and Literature.

Professor Woolery and Mr. Ohern.

1. Homer's Iliad or Odyssey (Books I, II and III) and Homeric Verse. (If the independent Preparatory Course 4, offered in the Summer Quarter, has been taken, this course will be credited as College Greek.) All the text is read metrically, some passages are memorized and others are assigned for translation in English verse. Etymology and Mythology receive special attention. Seymour's "Iliad." Collateral reading: Jebb's "Introduction to Homer," and Gladstone's "Time and Place of Homer." Spring, 8.00; 8 M.

2. Plato's Gorgias. Some attention is given to the study of Greek Philosophy in this connection. "Plato's Gorgias," by Lodge. Collateral reading: Mitchell's "A Study of Greek Philosophy." Fall, 10.00; 8 M.

3. Demosthenes' Olynthiacs and Philippics. Stress is laid on correct use of synonyms, Greek rhetoric and oratory. Frequent sight translating to catch the spirit of the orator. "Demosthenes' Olynthiacs and Philippics," by Tyler. Winter, 10.00; 8 M.

4. Aschylus' Prometheus Bound. The literary finish of the production and intense poetical genius of its author are studied. "The Prometheus Bound of Aschylus," by F. D. Allen. Metrical system given attention. Supplemental reading: "The Tragic Drama," by Haigh. Spring, 10.00; 8 M.

5. Lucian's Shorter Dialogues. Those who have had two years or more of Greek are eligible to membership in this course. "The Dialogues of the Dead" and other short dialogues will be read. "Selections from Lucian," by Williams. Fall, 8.00; 8 M.

6. Lucian's Longer Dialogues. Besides a study of Greek religion and mythology in connection with these satires, considerable time is given to sculpture. Williams' "Selections from Lucian;" Gardiner's "Greek Sculpture." Summer, 10.00; Winter, 8.00; 8 M.

7. Herodotus and Thucydides. Selections. Emphasis is placed on Greek History. "Herodotus and Thucydides, Selections," by

Mather. Myers' "History of Greece" is read in connection with the native historians. Fall, 11.00; 8 M.

8. New Testament Greek. John's Gospel and the Acts of the Apostles. In the translation, pure, idiomatic English of the nineteenth century is required. Westcott and Hort. Winter, 11.00; 8 M.

9. Modern Greek. Vincent and Dickson's text is used, newspapers and magazines, and reports of archæological researches in Greece. Prerequisite, six courses in Greek. Spring, 11.00; 8 M.

10. Seminary in Greek. Papers and discussions on assigned topics. Larger opportunities for original investigation and specialization. Graduate students and those well advanced in their college course, who desire to become specialists in this department, should take this course. Credit is given for one-third of a course each quarter, or more if the work accomplished justifies it.

Fall, Winter and Spring, Bi-weekly, Monday, 2-4 P. M; 8 M.
Professor Woolery and Mr. Ohern.

Latin Language and Literature.

PROFESSOR DOUTHAT.

In all courses in this department frequent illustrations of Roman life are given by lantern views and lectures. Translations both oral and written are required from English into Latin, as well as from Latin into English. In the courses in poetry attention is given to scanning. In the earlier courses particular stress is laid upon the collection of a working vocabulary.

1. Virgil's Eclogues and Georgics. Chase and Stuart's "Virgil's Eclogues and Georgics," with scanning. Summer, 11.00; 21 U.

2. Horace's Odes. Latin writing and the study of synonyms. Shorey's "Horace's Odes and Epodes;" Miller's "Latin Composition." Fall, 11.00; 21 U.

3. Aulus Gellius' Stories. Frequent sight reading. Latin writing and conversation, and synonyms. Knapp's "Stories from Aulus Gellius;" Arrowsmith and Knapp's "Viri Romæ" for sight reading; Miller's "Latin Composition." Winter, 11.00; 21 U.

4. Cicero's De Amicitia and De Senectute. Latin writing and conversation, and synonyms. Bennett's "De Amicitia and De Senectute;" Miller's "Latin Composition." Spring, 11.00; 21 U.

5. Livy, Book XXI. Chase and Stuart's "Livy," or Peck and Arrowsmith's "Roman Life in Prose and Verse;" Miller's "Latin Composition." Summer, 9.00; 21 U.

6. Horace's Satires and Epistles. Greenough's "Horace," or Peck and Arrowsmith's "Roman Life in Prose and Verse;" Miller's "Latin Composition." Fall, 9.00; 21 U.

7. Cicero's Letters. Chase and Stuart's "Letters of Cicero," or Peck and Arrowsmith's "Roman Life in Prose and Verse;" Miller's "Latin Composition." Winter, 9.00; 21 U.

8. Cicero's De Officiis and De Oratore, the first for sight reading and translation at sight, the second for regular class study. Harper's "Latin Texts without Note or Comment;" Tomlinson's "Selections from Latin Authors;" Miller's "Latin Composition."

Spring, 9.00; 21 U.

9. Early Latin. Text-books: Allen's "Remnants;" Merry's "Fragments;" Miller's "Latin Composition." Books of reference: Egbert's "Latin Inscriptions;" Johnston's "Latin Manuscripts."

Summer, 8.00; 21 U.

10. Plautus: Captivi, Trinummus, and Rudens. Text-books: Morris's "Plautus;" Miller's "Latin Composition." Books of reference: Egbert's "Latin Inscriptions;" Johnston's "Latin Manuscripts."

Fall, 8.00; 21 U.

11. Juvenal. Selected Satires. Text-books: Lindsay's "Juvenal;" Miller's "Latin Composition." Books of reference: Creighton's "History of Rome;" Gibbon's "Decline and Fall of the Roman Empire."

Winter, 8.00; 21 U.

12. Pliny's Letters. Chase and Stuart's or Platner's "Select Letters of Pliny the Younger;" Middleton's "Companion to Latin Authors;" Miller's "Latin Composition." Spring, 8.00; 21 U.

13. Tacitus: Germania and Agricola. Allen's "Germania and Agricola;" Clement's "Latin Selections;" Harper's "Classical Dictionary;" Cape's "Early Empire;" Miller's "Latin Composition."

Summer, 10.00; 21 U.

14. Quintilian. Tenth and Twelfth Books. Belser's "Selections from Tenth and Twelfth Books of Quintilian;" Clement's "Latin Selections;" Harper's "Classical Dictionary;" Cape's "Early Empire;" Miller's "Latin Composition." Fall, 10.00; 21 U.

15. Seneca. Select Letters. Winslow's "Select Letters of Seneca;" Knapp's "Martian," for sight reading; Teuffel's "History of Roman Literature;" Miller's "Latin Composition."

Winter, 10.00; 21 U.

16. Petronius. Special study of the Latin in the "Sermo Plebeius" as an introduction to the Romance Languages and Comparative Philology. Gudemann's "Latin of the Empire," or Water's "Cena Trimalchionis;" Cooper's "Word Formation in the Roman Sermo Plebeius." Spring, 10.00; 21 U.

17. Synoptic Lectures. Roman Life and Literature.

Spring, Thursdays, 8.00 P. M.

Romance Languages and Literatures.

PROFESSOR MCKENZIE AND MR. BALLARD.

French.

1. Elementary Course. Grammar, reading, and as much practice as possible in pronunciation and conversation. Whitney's or Edgren's "Grammar;" Super's or Whitney's "Reader." Summer, 11.00. Fall, first section, 11.00; second section, 12.00; Spring, 9.00; 10 U.

2. Elementary Course. A continuance of Course 1. The Grammar and the Reader will be finished, and the reading of easy French texts continued. Summer, 9.00; Winter, first section, 11.00; second section, 12.00; 10 U.

3. Modern Prose. A continuation of Course 2. Reading from works by Erckmann-Chatrian, Enault, George Sand, etc.; Grandgent's "Materials for French Composition." It is expected that in Courses 1, 2, and 3 the elements of French Grammar will be mastered, a fair pronunciation acquired, and 450 to 500 pages of modern prose and poetry read. Spring, first section, 11.00; second section, 12.00; 10 U.

4. Fiction of the Nineteenth Century. Works by Daudet, Dumas, About, etc.; La Fontaine's "Fables." Practice in writing and speaking French, continued through Courses 5 and 6. For students who have had one year of French. Summer, Fall, 10.00; 10 U.

5. Historical and Dramatic Works of the Nineteenth Century: Michelet, Pailleron, Dumas, Scribe, Victor Hugo. Winter, 10.00; 10 U.

6. Drama of the Seventeenth Century. Corneille, Racine, Molière. Spring, 10.00; 10 U.

NOTE.—Courses 4, 5, and 6 are continuous, and it is recommended that they be taken in this order; qualified students will, however, be admitted to Course 5 or 6 without having had the course preceding.

7. French Classical Tragedy (advanced course). The works of Corneille and Racine will be studied, in connection with outside reading; and also, for the sake of comparing with them a romantic tragedy, Victor Hugo's "Hernani." Lectures on the drama from the Middle Ages to the death of Racine. Fall.

8. French Comedy (advanced course), with especial study of the life and works of Molière. Winter.

9. French Literature of the Nineteenth Century, from Victor Hugo and the Romanticist movement to the present. Fiction, Lyric Poetry, Drama, Criticism. Spring.

10. French Literature of the Seventeenth and Eighteenth Centuries. In this course comparatively little attention will be devoted

to the drama, which is studied in Courses 6, 7, and 8. Selected essays by Sainte-Beuve will be read in connection with the authors studied. Fall.

11. French Literature of the Sixteenth Century. Marot, Rabelais, La Pléiade, Montaigne. Winter.

12. Old French. The development of the language from Latin. La Chanson de Roland, Aucassin et Nicolette, Marie de France. Spring.

NOTE.—Courses 7 to 12 are essentially courses in literature. They will be conducted partly in French, and students will have frequent opportunity to speak and write the language. In each course, as many texts as time permits will be read in class; others will be read outside and discussed in class. Part of the work will consist of special reports on assigned subjects.

13. Research Work in French Literature will be arranged for advanced students, including work on subjects suitable for theses.

Italian.

1. Elementary Course. Grammar, reading, and composition. It is desirable that students who take this course should have some knowledge of Latin. Grandgent's Italian Grammar; selections from modern authors. Winter, 9.00; 10 U.

2. Elementary Course. A continuation of Course 1. Spring, 9.00; 10 U.

3. Elementary Course. A continuation of Course 2.

4. Italian Literature of the Middle Ages and Renaissance. Two lectures each week, in addition to a course of synoptic lectures on the life and works of Dante (see p. 36).

Students who receive credit for this course will be required to do outside reading, and to prepare reports on assigned subjects; but the lectures will be open also to persons who do not wish to receive credit. A reading knowledge of French or Italian will be of advantage, but not absolutely necessary. Winter.

Spanish.

1. Elementary Course. Grammar and reading, with practice in pronunciation, conversation, and composition. A knowledge of Latin or French will be of advantage to the students who take this course. Ramsey's "Text-book of Modern Spanish;" Ramsey's "Elementary Reader." Summer, 8.00; Fall, 9.00.

2. Elementary Course (continuation of Course 1). Matzke's "Spanish Reader." Winter, 9.00.

3. Modern Authors: Galdos Estebanez, etc. Spring, 9.00.

4. Advanced Course. Advanced work in Spanish will be arranged for qualified students. Reading of works by Cervantes, Calderon, and Lope de Vega.

Germanic Languages and Literature.

PROFESSOR TRUSCOTT AND MR. PORTERFIELD.

German.

1. Elementary German. A course for beginners, the object being to acquaint the student with the elements of grammar, to give him a reading knowledge of the easiest German prose and as much practice in pronunciation as possible. Thomas' "Grammar," Part I; Harris' "Reader," Part I. Summer, 9.00.

Fall, first section, 9.00; second section, 11.00; third section, 12.00; Winter, 12.00; 22 U.

2. Elementary German. A continuation of Course 1. Reading of easy prose and poetry. Some poems will be memorized and especial attention given to correct pronunciation. Reading at sight. Harris' "Reader," Parts II, IV, VI.

Winter, first section, 9.00; second section, 11.00; Spring, 12.00; 22 U.

3. Elementary German. A continuation of Course 2. Reading and conversation. Elementary work in composition accompanied by a review of the grammar. Storm's "Immensee;" "Höher als die Kirche;" "Im Zwielicht;" Hatfield's "Materials for Composition."

Spring, first section, 9.00; second section, 11.00; 22 U.

4. German Prose. Copious reading of German poets to render the student familiar with the idioms of the language and give him a large and varied vocabulary. Nichol's "Three German Tales;" Bernhardt's "Novelleten-Bibliothek." Summer, Fall, 8.00; 22 U.

5. Composition and Conversation. Practice in written German and translation of English prose into idiomatic German. A part of the time will be devoted to exercises in conversation. "Methode Berlitz, Erstes Buch;" Harris' "Prose Composition." Winter, 8.00; 22 U.

6. German Poetry. "Hermann und Dorothea;" familiar German ballads. Spring, 8.00; 22 U.

7. Survey of German Literature. This course deals in outline with the history of the literature, its beginnings and development, and lays stress on the prominent authors and chief epochs. Readings from Lueben's "Auswahl;" Kluge, "Geschichte der deutschen National-Litteratur." Summer, Fall, 10.00; 22 U.

8. Schiller. A study of his life. Reading and interpretation of "Wilhelm Tell" and Wallenstein. Some of the other dramas will be read privately and reported to the class. Winter, 10.00; 22 U.

9. Heine. A study of his life. Readings from both prose and poetry. Special topics will be assigned for private study.

Spring, 10.00; 22 U.

16. Scientific German. Intended for students in the scientific courses who have had at least a year of elementary German. The purpose is to teach students to read at sight scientific articles in German. Hodges' "German Science Reader;" Cohn's "Ueber Bakterien."

Hour to be arranged; 22 U.

Anglo-Saxon.

1. Anglo-Saxon. Introductory course open to advanced students in English or German. An introduction to the historical study of the English language. Translation of Anglo-Saxon prose; study of the word forms with special reference to modern English. Prerequisite, English 4. Summer, 11.00; 22 U.

English Language and Literature.

PROFESSOR ARMSTRONG AND MR. HOLDEN.

1. Development of the English Language. History and structure of the English language; sources of its vocabulary; history of word formations and inflections; exercises in Etymology. Recitations, lectures, and reports. Prerequisites, Rhetoric 1 and 2.

Fall, 8.00; 20 U.

2. General Survey of English Literature. This course is intended to be an introduction to the study of literature. Its purpose is to give the student a conception of the nature of literature, a general knowledge of the great field of literature, and a definite knowledge of a few English classics. Recitations and critiques on assigned readings. Brooke's "History of English Literature," and copies of complete masterpieces. Prerequisites, Rhetoric 1 and 2.

Professor Armstrong. Summer, 8.00.
Mr. Holden. Fall, Spring, 11.00; 20 U.

3. Nineteenth Century Literature. A survey of the chief writers of the nineteenth century in England, with a critical study of a few masterpieces of representative writers. Recitations, lectures and critiques on assigned readings. Prerequisites, Rhetoric 1 and 2, and English Literature 2. Winter, 8.00; 20 U.

4. American Literature. A brief outline of its historical development, and a study of selected works of representative authors. Recitations, lectures, and critiques on assigned readings. Prerequisites, Rhetoric 1 and 2, and English Literature 2.

Summer, 11.00; Spring, 8.00; 20 U.

5. English Literary Criticism. A study of the leading principles of criticism with practical exercises in the criticism of representa-

tive specimens of the various kinds of literature. Recitations, lectures, and critiques on assigned readings. Prerequisites, Rhetoric 1 and 2, and English Literature 2. Fall, 9.00; 20 U.

6. **The Short Story.** The short story as a form of literature. A study of its development and some of its perfected types from Poe to Kipling. Prerequisites, Rhetoric 1 and 2, and English Literature 2. Winter, 9.00; 20 U.

7. **The Bible as Literature.** A study of the English Bible as literature; discussion of the literary form and interpretation of some of its masterpieces. Recitations, lectures, class readings. Prerequisites, Rhetoric 1 and 2, and English Literature 2. Summer, Spring, 9.00; 20 U.

8. **Pre-Shakespearean Drama.** The rise and development of the English drama from the Miracle Plays to Shakespeare. Study of representative plays of the period. Prerequisites, Rhetoric 1 and 2, and English Literature 2. Fall, 10.00; 20 U.

9. **Representative Plays of Shakespeare.** The interpretation of representative plays. Recitations, class readings, and reports on collateral readings. Boas' "Shakespeare and His Predecessors," and annotated editions of the plays read in class. Prerequisites, Rhetoric 1 and 2, and English Literature 2. Summer, Winter, 10.00; 20 U.

10. **The Later English Drama.** A study of representative dramas from the Restoration to the present time: Goldsmith, Dryden, Wycherly, Congreve, Sheridan, Bulwer-Lytton, Tennyson, Browning. Prerequisites, Rhetoric 1, 2, and English Literature 2. Spring, 10.00; 20 U.

11. **The Novel.** The development of the English novel, with a study of selected authors and types. (Announced conditionally.) Fall, 11.00; 20 U.

12. **English Poetry.** A study of representative short poems from Chaucer to Tennyson. (Announced conditionally.) Spring, 11.00; 20 U.

13. **The English Romantic Poets.** A study of the English romantic movement as illustrated by the poetry of Crabbe, Cowper, Coleridge, Burns, Wordsworth, Scott, Byron, Shelly, Keats. Prerequisites, Rhetoric 1 and 2, and English Literature 2. Fall, 1900, 10.00; 20 U.

14. **Study of an Author.** The entire production of some selected author, studied to gain a complete view. This study will run through the year and will be conducted on the seminary plan. The author to be studied in 1899-1900 is George Eliot. Open to advanced students who are competent to do the work.

15. Tennyson. Studies in the sources, form, and literary interpretation of Tennyson's poems. Recitations, class readings, and critiques. Prerequisites, Rhetoric 1 and 2, and English Literature 2.
Fall, 1900, 9.00; 20 U.

16. Special Study. The instructors in English hold themselves ready to assist and advise competent graduates who may propose plans of special study which meet the approval of the department.

Rhetoric and Elocution.

PROFESSOR PATTERSON AND MR. SMITH.

Rhetoric.

1. Composition. The work is almost wholly practical. Daily themes. Critiques in class. A number of book reviews and three long essays. In addition to the text-book work, special study of several prose masterpieces. It is intended that the student shall obtain a thorough practical knowledge of all matters of rule. Lectures.
Summer, Fall, 11.00; Spring, 8.00.

2. Rhetoric. In this course especial attention is given to matters of taste. The student is required to read and make written reports upon a large number of masterpieces. Long essays. Extempore composition and criticism. Class study of several literary masterpieces. Lectures. In this quarter the professor endeavors to meet each member of the class as often as possible for consultation. Prerequisite, Rhetoric 1. Winter, 11.00.

3. Applied Rhetoric. Description, narration, exposition. Class study of literary masterpieces illustrating the various literary forms. Constant practice in applying the principles. Criticism. Preparation of a thesis. Reference to Spencer, De Quincey and others as authority. Frequent consultations with each member of the class. Prerequisites, Rhetoric 1 and 2. Spring, 11.00.

4. The Essay. The essayists of the nineteenth century are studied to illustrate the uses of the essay form, and the growth of this element in our literature. Criticisms, with written reports on assigned topics, and writing of types of essays. Consultations. Prerequisites, Rhetoric 1 and 2. Fall, 10.00.

5. Short Story and Novel. Examples of the varied forms are read and methods analyzed. Style, invention, etc. Practice in writing is supplemented by criticism before the class and individual consultations. Prerequisites, Rhetoric 1 and 2. Winter, 10.00.

6. The Poem. Study of poetic diction. Uses of the various forms. Examples from great authors. Composition and criticism. Prerequisites, Rhetoric 1 and 2. Fall, 11.00.

7. Rhetorical Research. Any student sufficiently advanced may pursue a special line of inquiry in the investigation of some restricted field of rhetorical study under the direction of the Professor of Rhetoric.

Elocution.

1. Elocution. A preliminary course in the essentials of expression to remove faults and mannerisms and to establish correct use, freedom, and ease; to give the student control of the instruments of expression. Section drill, rehearsals, and recitals. Summer, Fall, 12.00.

2. Expression. A continuation of Course 1. Especial attention to the technique of the speaker's art. Individual and section drill. Assigned literature for analysis and interpretation. Prerequisite, Elocution 1. Winter, 12.00.

3. Oration and Argumentation. Study of great orations. Lectures on extemporaneous speaking, structure and diction of spoken discourse, etc. Constant practice in extemporaneous speaking and debate. Preparation of briefs and of one oration. Prerequisite, Elocution 1. Spring, 12.00.

4. Expression in Drama. Special study of Shakespearean plays. Analysis and interpretation of character and scene. Problems of the stage. Stage management, etc. Prerequisite, Elocution 1. Spring, 10.00.

5. Public Reading. Individual training with a view to platform work. Methods of analysis and interpretation. The work of the student throughout this course is centered upon three or four selections. Prerequisites, Elocution 1 and 2. Fall, 9.00.

6. Pulpit Oratory. Homiletic analysis. Structure and delivery of the sermon. Reading of hymns, psalms and selections from the Scriptures. Prerequisites, Rhetoric 1, and Elocution 1; also recommended, English 7. Winter, 9.00.

7. Interpretation. Any student sufficiently advanced may pursue the analysis and interpretation of a complete play or other long masterpiece, or of the works of some one author, under the direction of the Professor of Elocution.

Mathematics.

Professor Stewart, Mr. Barton, and Mr. Thompson.

1. University Algebra. Binomial Theorem. Theorem of Undetermined Coefficients. Theory and Use of Logarithms. Logarithmic and Exponential Series. Theory of Equations. Solution of Higher Numerical Equations. Wells' "University Algebra." Prerequisite, Higher Algebra through Quadratics. Mr. Thompson. Summer, 10.00. Professor Stewart. Fall, first section, 10.00; second section, 3.00. Winter, 9.00; 3 M.

2. Solid Geometry. Wells' "Solid Geometry." Prerequisite, Wells' "Plane Geometry," or its equivalent.

Mr. Barton. Summer, 12.00; 7 M.
Winter, first section, 10.00; second section, 11.00;
Spring, 9.00; 3 M.

3. Plane and Spherical Trigonometry. Wells' "Plane and Spherical Trigonometry," revised edition, with tables. Prerequisites, Mathematics 1 and 2. Mr. Thompson. Summer, 11.00;
Professor Stewart. Fall, 9.00;
Spring, first section, 10.30; second section, 3.00; 3 M.

4. Analytic Geometry. Cartesian Co-ordinates. Polar Co-ordinates. Conic Sections. Higher Plane Curves. Nichol's "Analytic Geometry." Prerequisites, Mathematics 1, 2, and 3.

Mr. Thompson. Summer, 8.00;
Professor Stewart. Fall, 8.00; 3 M.

5. Differential Calculus. Differentiation of Algebraic and Transcendental Functions. Expansion of Functions into Series. Evaluation of Indeterminate Forms. Maxima and Minima of Functions of one or of several Independent Variables. Curvature. Singular Points. Asymptotes. Envelopes. Order of Contact. Osborne's "Differential and Integral Calculus." Prerequisites, Mathematics 1 to 4, inclusive.

Winter, 8.00; 3 M.

6. Integral Calculus. Application to Plane Curves. Rectification of Curves. Areas of Curves. Surfaces and Volumes of Revolution. Double and Triple Integrals. Area of any Surface. Volume of any Solid. Hyperbolic Functions. Osborne's "Differential and Integral Calculus." Prerequisites, Mathematics 1 to 5, inclusive.

Spring, 8.00; 3 M.

For courses in Applied Mathematics, see announcements of the College of Engineering and Mechanic Arts.

Astronomy.

Professor Stewart and Mr. Thompson.

1. Descriptive Astronomy. This course aims to supply a sketch of the growth of the science, an orderly statement of astronomical facts, the methods of arriving at them, and a clear conception of underlying principles. Mr. Thompson. Summer, 9.00;
Professor Stewart. Winter, 9.00; 3 M.

Physics.

Professor Hodges.

1. Elementary Physics. Required for admission to all courses. No credit for this course is allowed as college work; it is given for

students who have not had its equivalent elsewhere. Recitations, supplemented by experiments and demonstrations. Prerequisites, Elementary Algebra and Plane Geometry. Gage's "Elements of Physics."

Summer, 10.00; Winter, Spring, 11.00; 11 S.

2. General Physics. Mechanics. Lectures and recitations, accompanied by individual laboratory work, which, though elementary, is strictly quantitative. Required of candidates for Scientific and Engineering degrees. Prerequisite, Mathematics 3. Ames' "Theory of Physics."

Summer. Lectures: Monday, Wednesday, Friday, 9.00; 11 S.
Laboratory: Tuesday, Thursday, 2.00; 1 S.
Fall. Lectures: Monday, Wednesday, Friday, 10.00; 11 S.
Laboratory: Tuesday, Thursday, 1.30; 1 S.

3. General Physics. A continuation of Course 2. Sound, Heat, and Light. Lectures and Laboratory work.

Winter. Lectures: Monday, Wednesday, Friday, 10.00; 11 S.
Laboratory: Tuesday, Thursday, 1.30; 1 S.

4. General Physics. A continuation of Course 3. Electricity and Magnetism. Lectures and Laboratory work.

Students who have not taken Course 3 may be admitted to this course, if they have taken Course 2.

Spring. Lectures: Monday, Wednesday, Friday, 10.00; 11 S.
Laboratory: Tuesday, Thursday, 1.30; 1 S.

5. Experimental Physics. A laboratory course exclusively, consisting of elementary quantitative experiments. Intended to meet the requirements of a laboratory course in the Classical, Philosophical and Modern Literature courses. Open to students who do not take Courses 2, 3, and 4. Sabine's "Laboratory Course in Physics." Prerequisite, Plane Trigonometry. Full course, Summer, 2.00; 1 S.

May be taken in the Fall, Winter and Spring quarters, one-third course each quarter. Mondays, Wednesdays, 1.30; 1 S.

6. Sound. Advanced theoretical work. Lectures and Laboratory exercises. Prerequisites, Physics 2 and 3, Mathematics 6.

Half course, first term, Winter, 9.00; 11 S.

7. Light. Lectures and laboratory measurements. Prerequisites, Physics 2 and 3, Mathematics 6.

Half course, second term, Winter, 9.00; 11 S.

8. Electrical Measurements. Advanced laboratory work. The student uses measuring instruments of precision, sensitive galvanometers, apparatus for accurate measurement of resistance, current, electromotive force, induction, magnetic properties of iron, etc. Carhart and Patterson's "Electrical Measurements." Prerequisites, Physics 4, Mathematics 6.

One-third course, Spring, Monday, Wednesday, 1.30; 1 S.

9. Dynamos and Motors. The elements of the general theory of Dynamos and Motors. Lectures and laboratory work. Prerequisite, Physics 4. Course 8 may be substituted for the laboratory work of this course.

Spring. Lectures: Monday, Wednesday, Friday, 8.00; 11 S.
Laboratory: Tuesday, Thursday, 1.30; 1 S.

10. Practical Electricity. Synoptic Lectures. Open to all college students. One-third course. Winter, 1900, 7.00 P. M.; 11 S.

11. Special Work. Students desiring to pursue any line of special work in the Department of Physics will be given opportunity to do so to the extent that the time of the instructor and the laboratory equipment will permit. Credit for such work will be allowed in proportion to the amount of work done.

Chemistry.

PROFESSOR WHITEHILL AND MR. POST.

1. Inorganic Chemistry. This course is designed for beginners, and serves as a general introduction to chemical methods and operations. It includes a systematic study of the laws of chemical combinations, the source, preparation, properties and compounds of the non-metallic elements and the principles and theories of chemical philosophy. Experimental lectures, laboratory work, and recitations.

Summer, 10.00; Fall, 9.00; Spring, 10.00; 20 S.

2. Inorganic Chemistry. This course includes the study of the metallic elements, and special attention is paid to the application of Chemistry in Agriculture, Engineering, Medicine, and every-day life. Lectures, laboratory work, and recitations. Half course.

First term, Summer and Winter, 9.00; First term, Fall, 10.00; 20 S.

3. Organic Chemistry. This course includes the study of the more important organic compounds, together with the laboratory processes for the preparation of such compounds. Lectures, laboratory work, and recitations. Half course.

Second term, Summer and Winter, 9.00; Second term, Fall, 10.00; 20 S.

4. Advanced General Chemistry. This course is designed to supplement the work of the Fall and Winter quarters, and includes both theoretical and laboratory work. It is preparatory to the regular courses in quantitative and qualitative analysis. Prerequisites, two quarters' work in General Chemistry. Spring, 9.00; 20 S.

5. Qualitative Analysis. A laboratory course designed for students who are familiar with the elementary principles of Chemistry. It includes the preparation of the more important gases and salts, and the detection of the elements and their compounds.

Half course, first term, Summer, 2.00;
One-third course, Fall, Tuesdays, Thursdays, 1.30; 22 S.

6. Elementary Quantitative Analysis. This course includes a small number of simple gravimetric, volumetric, and electrolytic determinations, together with the study of the operations involved. Laboratory course. Half course, second term, Summer, 2.00; 22 S.

One-third course, Winter, Tuesdays, Thursdays, 1.30; 22 S.

7. Analysis of Coal, Coke and Water. This course is designed especially for Engineering students, but is open to others who have the necessary preliminary training. Laboratory course. One-third course. Spring, Tuesdays, Thursdays, 1.30; 21, 22 S.

8. Quantitative Analysis. This course is designed for students who expect to make Chemistry a specialty. It includes exercises in determining the composition of ores, minerals, and various technical compounds. Instruction is also given in assaying, gas analysis, and in the analysis of iron and steel. Exercises are selected to give as wide an acquaintance as possible with laboratory methods. One-third course each quarter.

Summer, Fall, Winter, Spring, Mondays, Wednesdays, 1.30; 21, 22 S.

9. Iron Ores, Pig Iron, and Steel. This course includes practice in the special methods of analysis of ores, pig iron, and steel in use in the laboratories of the iron and steel works located in West Virginia and Western Pennsylvania. One-third course.

Summer, Fall, Winter, Spring, Tuesdays, Thursdays, 1.30; 21 S.

10. The Chemistry of Every-day Life. A course of synoptic lectures, including a study of the fundamental facts and principles of Chemistry, fully illustrated by experiments.

One-third course, Fall, Tuesdays, 8.00 P.M.; 20 S.

11. Special Work. Chemistry offers a wide field for investigation. Special work in any of the various departments of the science may be taken in the laboratory under the direction of the instructor, and credit will be given in proportion to the amount of work accomplished. 21, 22 S.

For courses in Agricultural Chemistry, see announcements of the College of Agriculture.

Geology and Mineralogy.

PROFESSOR BROWN.

1. Physical Geography. An elementary course for which no credit is given toward a college degree, but which must be taken before students are admitted to other courses in this department, unless they have had its equivalent elsewhere. Fall, 9.00; 30 S.

2. Physiography. The earth as a planet; the atmosphere; the distribution of temperature; winds; geographic distribution of plants

and animals; the ocean. Open to any University student. Recitations and lectures. Davis' "Physical Geography." Spring, 10.00; 30 S.

3. Geographic Geology. The crust of the earth; river valleys; plateaus and mountains; man and nature; the economic products of the earth; meteorological instruments and methods. Open to any University student. Davis' "Physical Geography."
Summer, Winter, 10.00; 30 S.

4. General Geology. A general course in dynamic and structural Geology. Economic applications of Geology will receive special attention. Numerous excursions will be made. The University is situated in a mining region, and within five miles of the western fold of the Appalachian mountains; the advantages for the practical study of Geology are therefore almost unequaled. Recitations, lectures and field work. LeConte's "Elements of Geology." Prerequisites, Chemistry 1, Physics 2. Summer, 8.00; Fall, 11.00; Spring, 9.00; 30 S.

5. Paleontology. The progress and development of plants and animals through the different ages of the earth. For illustration in this subject the University has an equipment of many thousands of fossils, casts and models. Recitations and lectures. Le Conte's "Elements of Geology." Prerequisites, Biology 4 and 8.
Summer, Winter, 11.00; 30 S.

6. Economic Geology. Common rock and vein-forming minerals; Physical Geography and Geology of the United States; the origin of ore deposits; mining terms and methods; metalliferous deposits. Recitations and lectures. Tarr's "Elements of Economic Geology." Prerequisite, Geology 4. Spring, 11.00; 30 S.

7. Advanced Economic Geology. The fuels—coal, oil and natural gas—soils, clays and fertilizers, precious stones and building stones. The University is in the midst of a great coal-producing region, while oil and gas wells are within easy reach. Recitations and lectures. Tarr's "Elements," and Merrill's "Stones for Building and Decoration." Prerequisite, Geology 6. Summer, 12.00; Fall, 10.00; 30 S.

8. Mineralogy. Crystallography; physical qualities of minerals; description of minerals consisting of basic elements to the silicates. The University has a good collection of minerals for practical instruction. Open to all University students. Recitations, lectures and practical determinations. Dana's "Manual of Mineralogy."
Summer, 9.00; Fall, 8.00; Winter, 9.00; 30 S.

9. Advanced Mineralogy. The silicates and hydrocarbon compounds and their determination. Dana's "Manual of Mineralogy."
Winter, 8.00; 30 S.

Biology.

PROFESSOR HARTIGAN.

1. Elementary Physiology. Required for admission to all courses. No credit is given toward a college degree for this course.
Winter, 9.00; 30 U.

2. Elementary Botany. Required for admission to all courses. No credit is given toward a college degree for this course. Its aim is to awaken in the student's mind an interest in plants—to lead him to see the things he looks at, and to draw proper conclusions from what he sees. The objects which are made the basis of the instruction are all taken from the plants with which everyone comes in frequent contact. Recitations and demonstrations. Spring, 10.00; lecture-room, A.

3. General Biology. This course serves either as an introduction to other biological work, such as Zoology, Botany and Physiology, or as a course complete in itself. It is designed to give the student general conceptions of what living organisms are, how they perform their various functions, and how they are related to one another. In short, the attempt is made to present the fundamental phenomena of animal and plant life. The work will consist of examinations in the laboratory of types representing the main groups of animals and plants, and lectures and recitations on the more general features of their anatomy, physiology and classification. Fall, 10.00; 30 U.

4. Descriptive Botany. Description and nomenclature of plants. Recitations and lectures on Plant Histology and the laws of tissue and organ formation. Wood's "Botanist and Florist."
Winter, 11.00; 30 U.

5. Field Botany. A course in practical analytical Botany. Sufficient time will be devoted to the text to gain a working knowledge of terms and structure. As much of the work as possible will be done in the field. Each student will make a herbarium of at least twenty-five specimens, with full analysis of each, including drawings as indicated on the analysis chart. The texts used are Wood, Kellerman and Gray.
Summer, Spring, 11.00; 30 U.

6. Structural Botany. Lectures on general Plant Anatomy and Physiology, with practical laboratory work in Vegetable Histology and Bacteriology. Members of the class are required to make bacteriological analysis of water and air. Fall, 11.00; 30 U.

7. Physiology. Human and Comparative Physiology. Lectures and practical laboratory work, supplemented by assigned reading in Flint's "Human Physiology," Yeo's "Manual," and the works of Kirke, Dalton, Landois and Sterling. Summer, Spring, 11.00; 30 U.

8. Zoology. Comparative and Systematic; the phenomena of tissue systems, their origin, specialization and functions. Some attention will be given to Embryology, the phenomena of protoplasm and organic evolution. Orton's "Comparative Zoology," supplemented by lectures and collateral reading in the works of Haeckel, Spencer, Darwin, Packard and Claus. Summer, 9.00; Winter, 10.00; 30 U.

9. Advanced Zoology. A continuation of Course 8. In this course instruction is given in the principles of microscopical technique, including the proper preparation, cutting, staining and mounting of the various animal tissues. Spring, 10.00; 30 U.

10. Human Anatomy. This course is particularly valuable for students intending to study Medicine and Surgery. The instruction is mainly by lectures and demonstrations, free use being made of the skeleton, cadaver, specimens, charts, models and manikins. Keene's edition of Gray's "Anatomy." Summer, Fall, 8.00; 30 U.

11. Advanced Human Anatomy. A continuation of Course 10. Students are required to dissect at least three parts of the human body. Winter, 8.00; 30 U.

THE COLLEGE OF ENGINEERING AND THE MECHANIC ARTS.

Staff of Instruction.

The Faculty.

JEROME HALL RAYMOND, Ph.D., President of the University.

JOHN LINDSAY JOHNSTON, C.E., Professor of Civil and Mining Engineering.

WILLIAM SLEEPER ALDRICH, M.E., Professor of Mechanical Engineering and the Mechanic Arts.

FREDERICK LINCOLN EMORY, B.S., M.M.E., Professor of Mechanics and Applied Mathematics.

CLEMENT ROSS JONES, M.E., Instructor in Mechanical Engineering.

RUSSELL LOVE MORRIS, C.E., Instructor in Civil and Mining Engineering.

RUFUS WEST, Assistant in Metal Working.

Other Instructors Giving Courses in this College.

ALEXANDER REID WHITEHILL, Ph.D., Professor of Chemistry.

JAMES SCOTT STEWART, M.S., Professor of Mathematics.

SAMUEL B. BROWN, A.M., Professor of Geology and Mineralogy.

ROBERT ALLEN ARMSTRONG, A.M., Professor of English.

THOMAS EDWARD HODGES, A.M., Professor of Physics.

CHARLES HENRY PATTERSON, A.M., Professor of Rhetoric and Elocution.

EVA EMMA HUBBARD, Instructor in Drawing.

ARTHUR LEE POST, A.B., Fellow in Chemistry.

Organization.

This College comprises the following departments:

Civil and Mining Engineering;

Mechanical Engineering and the Mechanic Arts;

Mechanics and Applied Mathematics.

The requirements for admission and graduation and the arrangement of the courses of instruction, and such other work as pertains to this College, are provided for by its Faculty, in conjunction with the University Faculty.

Equipment and Facilities for Instruction.

The chemical, metallurgical, physical, electrical, geological and photographic laboratories are located in Science Hall, as well as the geological museum and the civil engineering laboratory, instrument-room and drawing-room. In the Mechanical Building* are located the lecture and recitation rooms of that department, as well as the wood-working and metalworking shops, the drawing and model rooms, the mechanical, steam, hydraulic, and electrical engineering laboratories, and the electric-light and power plant of the University.

The engineering students have thus at their command a large and varied collection of apparatus and instruments, of tools and machinery, of stock and material, which is being judiciously increased from year to year. In the drawing-rooms are collections of models of bridges, furnaces, structures, mechanisms, engines, pumps, valves and valve gear; plaster casts and descriptive geometry models; sets of charts, State and Government maps, surveys, photographs, engineering specifications, drawings, tracings and blue prints.

In the workshops are bench and machine tools and workshop appliances for working wood and metal, with a selected variety of measures, gauges, small tools, stock and material.

The engineering laboratories are fitted out with standard gauges and measures, calculating and recording instruments, with apparatus and appliances for qualitative and quantitative experimental work in civil, mechanical, steam, hydraulic and electrical engineering. The boilers, triple-expansion engine, pumps and condensers, dynamos, motors and electrical machinery, as well as the motive-power machinery of the mechanical shops, have all been specially selected and arranged for experimental work in Mechanical and Electrical Engineering.

Samples of raw materials and manufactured products are collected, forming the nucleus of an engineering museum. The latest trade literature, catalogues and reports of the current commercial developments in engineering are kept in classified files for the students' reference.

*Owing to the recent loss of the Mechanical Building by fire (March 4, 1899), temporary quarters have been provided in the basement of Science Hall, for the regular lectures and instruction in Drawing. Instruction in the engineering shops and laboratories will be resumed as soon as they can be provided for in the new Mechanical Building, about to be erected.

The University Library has a thoroughly classified and indexed collection of the standard and latest books in engineering and the allied sciences, complete bound sets of the transactions of several scientific and engineering societies, and current issues and bound volumes of the principal scientific and technical periodicals.

The regular and special courses offered by this College are designed to meet the requirements of the technical and professional lines of work leading to the respective certificates and engineering degrees indicated.

Methods of Instruction.

In the classroom instruction is given by lectures, combined with text-book study and recitations. Engineering problems and subjects are assigned to be worked out in the library or drawing-room, in the field, the shop or the laboratory. The several lines of work in any given study are co-ordinated so far as possible, as noted in schedules of this College. In this way time is economized. The student concentrates his attention, focalizing it upon the particular question, problem or project in hand. The classroom instruction is supplemented throughout by practical work in the field and drawing-room, shops and engineering laboratory. Visits of inspection to industrial establishments and power plants are made whenever it is possible to arrange for them.

The method of instruction in Manual Training and the Mechanic Arts is largely that of the shop-exercise system, by which the student is familiarized with the fundamental operations of constructive mechanics. Later on such instruction is combined with the work of construction of machine elements, tools and apparatus. Attention is given to the economics of time and material by use of the shop-order system in accounting for the same.

In engineering drawing and designing the work is carried along with the study of actual typical details of structural elements, and, where possible, parallel with the construction of similar elements or exercises in the laboratories and mechanical shops. Frequent reference is made to models, to blue prints of engineering structures and to existing work in the institution or elsewhere. An opportunity is also afforded for the necessary graphical treatment of engineering problems arising in lectures and the classroom instruction of any quarter.

Lectures, mimeographed notes, collateral reading, conference work and sketching accompany all the practical lines of work.

In Experimental Engineering, the students are required to make scientific observations, keep records of tests, facilitate deductions therefrom by the use of calculating instruments, tabulate and plot results and make reports upon the test in due form. Each member of the class is required to use and to become familiar with all the instruments and apparatus of any given course. The classes are divided into

groups of three or four students and furnished with mimeographed notes and forms. Observations are at once worked up and comparisons made with calculated and graphical results.

Requirements for Admission.

The requirements for admission to the courses leading to the degrees of Bachelor of Science in Civil Engineering and Bachelor of Science in Mechanical Engineering are as follows:

1. History:

(a) General History,—Myers, or an equivalent;
(b) United States History,—Fiske, or an equivalent.

2. English:

(a) Spelling, punctuation, capitalization and paragraphing;
(b) The leading facts of English grammar;
(c) Composition,—ability to write good English;
(d) Literature.

PART I. READING.—A certain number of books are set for reading. The candidate will be required to present evidence of a general knowledge of the subject-matter, and to answer simple questions on the lives of the authors. The form of examination will usually be the writing of a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number—perhaps ten or fifteen—set before him in the examination paper. The treatment of these topics is designed to test the candidate's power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. In place of a part or the whole of this test, the candidate may present an exercise book, properly certified by his instructor, containing compositions or other written work done in connection with the reading of the books.

The following are the books for the next three years:

1899: Dryden's "Palamon and Arcite;" Pope's "Iliad," Books I, VI, XXII, and XXIV; The "Sir Roger de Coverley Papers" in the *Spectator;* Goldsmith's "The Vicar of Wakefield;" Coleridge's "Ancient Mariner;" De Quincey's "The Flight of a Tartar Tribe;" Cooper's "Last of the Mohicans;" Lowell's "Vision of Sir Launfal;" Hawthorne's "The House of the Seven Gables."

1900: Dryden's "Palamon and Arcite;" Pope's "Iliad," Books I, VI, XXI, and XXII; Goldsmith's "The Vicar of Wakefield;" Scott's "Ivanhoe;" De Quincey's "The Flight of a Tartar Tribe;" Cooper's "Last of the Mohicans;" Tennyson's "The Princess;" Lowell's "Vision of Sir Launfal;" The "Sir Roger de Coverley Papers" in the *Spectator.*

1901: Scott's "Ivanhoe;" Pope's "Iliad," Books I, VI, XXII, and XXIV; The "Sir Roger de Coverley Papers" in the *Spectator;*

Goldsmith's "The Vicar of Wakefield;" Cooper's "The Last of the Mohicans;" Tennyson's "The Princess;" Coleridge's "Ancient Mariner;" Eliot's "Silas Marner;" Shakespeare's "The Merchant of Venice."

PART II. STUDY AND PRACTICE.—This part of the examination presupposes the thorough study of each of the works named below. The examination will be upon subject-matter, form and structure.

The books for this part of the examination for the next three years will be:

1899: Shakespeare's "Macbeth;" Milton's "Paradise Lost," Books I and II; Burke's "Speech on Conciliation with America;" Carlyle's "Essay on Burns."

1900: Shakespeare's "Macbeth;" Milton's "Paradise Lost," Books I and II; Burke's "Speech on Conciliation with America;" Macaulay's "Essays on Milton and Addison."

1901: Shakespeare's "Macbeth;" Burke's "Speech on Conciliation with America;" Macaulay's "Essays on Milton and Addison;" Milton's Minor Poems: "Lycidas," "Comus," "L'Allegro," and "Il Penseroso."

3. Mathematics:

(a) Arithmetic completed;
(b) Algebra to Logarithms,—Wells' University Algebra, or an equivalent;
(c) Plane Geometry,—Wells, or an equivalent.

After July 1, 1900, Solid Geometry will also be required.

4. Elementary Science:

(a) Physical Geography;
(b) Human Anatomy and Physiology;
(c) Physics;
(d) Botany.

The course in each to be not less than one quarter (twelve weeks), five recitations a week.

5. French:

Two years of daily recitations.

6. German:

Two years of daily recitations.

[NOTE.—Two years of Latin or Greek will be accepted instead of the second year of French and the second year of German.]

7. Drawing,—Freehand and Instrumental:

Three courses; the equivalent of five exercises a week throughout one year.

Admission to Special Courses.

Students will be admitted to these courses upon presentation of certificates of proficiency in the necessary preparatory work or otherwise giving satisfactory evidence that they are prepared to pursue these studies advantageously. In the case of the two-year certificate courses special requirements for admission are outlined below.

Admission to Advanced Standing.

Students from other institutions will be admitted to advanced standing under the same conditions under which students of this University are allowed to advance, namely:

A student to be registered as a Freshman must not be more than three courses behind his class; to be registered as a Sophomore, Junior or Senior he must have completed the required work of his course, including entrance examinations up to the beginning of the preceding year; and if a Sophomore, must not be more than three courses, or, if a Junior or a Senior, not more than two courses behind his class.

No student can be admitted as a candidate for either of the baccalaureate degrees in Engineering after the beginning of the fourth year.

The Two-Year Mechanical, Electrical, and Civil Engineering Certificate Courses.

Candidates for admission to either of these courses are required to satisfy the instructors in the respective branches by examination, presentation of certificates, or otherwise, that they have had the necessary preparation to enter upon and profitably pursue the studies offered. All such preparatory work should be thoroughly done before attempting to take up the regular work of the course. The necessary preparation may be obtained at this institution or elsewhere, or through the Correspondence Courses of Instruction offered by this University, and comprises English, Mathematics and Elementary Physics, as required for admission to the regular degree courses.

Engineering Courses Offered in This College.

The following courses are offered:

1. A four-year undergraduate course leading to the degree of Bachelor of Science in Civil Engineering;
2. A four-year undergraduate course leading to the degree of Bachelor of Science in Mechanical Engineering;
3. A graduate course leading to the degree of Civil Engineer;
4. A graduate course leading to the degree of Mechanical Engineer;
5. Two groups of Manual Training courses;

6. A group of fourteen Mechanical-course electives for Bachelor of Science students;

7. A group of fourteen Electrical-course electives for Bachelor of Science students;

8. A two-year Mechanical Certificate course;

9. A two-year Electrical Certificate course;

10. A two-year Civil Engineering Certificate Course.

General Description of the Engineering Courses.

Undergraduate Courses in Engineering.

These four-year courses lead respectively to the degrees of Bachelor of Science in Civil Engineering and Bachelor of Science in Mechanical Engineering. They consist of forty-eight full prescribed courses as detailed below under the heading "Requirements of Courses." Undergraduates in this College, however, are allowed to specialize in those branches permitting a certain amount of specialization, but they may not take less than three nor more than four courses in any one quarter.

The object of these courses is to enable young men who have pursued successfully the prescribed studies to enter upon the proper development of the professional work with intelligence and well directed application. Fundamental training is given in the arts and sciences of engineering. Academic courses are provided containing the elements of a liberal education. These form the best preparation for future professional work and constitute the proper foundation upon which one may build successfully his professional career and reputation. Thorough technical and practical instruction follow—training a student to meet the demands and to discharge faithfully the duties of his early engineering work, enabling him to keep pace with engineering progress and to prepare to meet the obligations of responsible work later in his career.

Graduate Courses in Engineering.

These lead to the professional degrees of Civil Engineer and Mechanical Engineer respectively. They consist of eight advanced engineering courses and a thesis, and require one year (three quarters) of resident study and work at the University.

Candidates for these professional degrees are required to have completed the prescribed four-year course of undergraduate study in that department of this College in which they propose to take a degree, or to have completed such a course or its equivalent at some other institution of recognized standard conferring the same or an equivalent baccalaureate degree. In this case the diploma and other certificates of proficiency should be presented.

Special Engineering Courses.

These are in the field of Manual Training, the Mechanical and Electrical course electives for Bachelor of Science students, and the two year Mechanical, Electrical and Civil Engineering Certificate courses. These lines of work afford opportunity for specializing in the undergraduate departments of the Engineering College. Students who do not propose to take a full course leading to a degree in Engineering may, nevertheless, be quite fully prepared to take up certain lines of profitable study and work during their residence at the University.

Requirements of Courses.

Requirements for the Degree of Bachelor of Science in Civil Engineering.

General Culture Courses—(19).

6 courses in Mathematics.
2 courses in Rhetoric.
1 course in English Literature.
2 courses in Economics.
1 course in Sociology.
2 courses in Geology.
2 courses in Chemistry.
3 courses in Physics.

19 General Culture Courses.

Technical and Professional Courses—(29).

1 course in Theory of Dynamos and Motors.
1 course in Analytical Chemistry.
1 course in Economic Geology.
1 course in Applied Mathematics.
2 courses in Theoretical Mechanics.
1 course in Strength of Materials.
2 courses in Development and Utilization of Power.
1 course in Advanced Freehand Drawing.
1 course in Instrumental Drawing.
1 course in Mechanical Drawing.
2 courses in Descriptive Geometry.

14 [*Forward to page 98.*]

14 General Culture Courses. [*Continued from page 97.*]
1 course in Surveying, Drawing and Field Practice.
1 course in Topographical and Mining Surveying.
2 courses in Roofs and Bridges and Mechanical Drawing.
2 courses in Stereotomy and Graphic Statics.
3 courses in Railroad Location and Field Practice.
1 course in Hydraulics.
1 course in Civil Engineering.
½ course in Civil Engineering Economics, and Plans and Specifications.
1 course in Mining Engineering.
1 course in Civil Engineering Laboratory.
½ course in Engineering Jurisprudence.
1 course Thesis.

48 courses required.

Requirements for the Degree of Bachelor of Science in Mechanical Engineering.

General Culture Courses—(19).

6 courses in Mathematics.
2 courses in Rhetoric.
1 course in English Literature.
2 courses in Economics.
1 course in Sociology.
2 courses in Geology.
2 courses in Chemistry.
3 courses in Physics.

19 General Culture Courses.

Technical and Professional Courses—(29).

1 course in Theory of Dynamos and Motors.
1 course in Analytical Chemistry.
2 courses in Theoretical Mechanics.
1 course in Strength of Materials.
2 courses in Development and Utilization of Power.
5 courses in Mechanic Arts and Construction.
1 course in Descriptive Geometry.
1 course in Mechanical Drawing.
3 courses in Machine Drawing and Design.

17 [*Forward to page 99.*]

17 General Culture Courses. [*Continued from page 98.*]
2 courses in Machine Design.
½ course in Mechanical Engineering Design and Economics.
1 course in Mechanism and Machinery.
1 course in Materials of Engineering.
1 course in Hydraulics.
1 course in Thermodynamics of Engineering.
1 course in Steam Boilers, Heating and Ventilating.
1 course in Prime Movers.
1 course in Electric Power Transmission.
½ course in Engineering Jurisprudence.
1 course in Experimental Engineering.
1 course Thesis.

—

48 courses required.

Requirements of the Manual Training Courses.

First Group—(1 Course).

One-third course in Woodworking, Carpentry and Joinery.
One-third course in Woodturning and Pattern-making.
One-third course in Pattern-making.

Second Group—(4 Courses).

One course in Mechanical Drawing.
One-third course in woodworking, Carpentry and Joinery.
One-third course in Woodturning and Pattern-making.
One-third course in Pattern-making.
One-third course in Iron and Steel Forging.
One-third course in Foundry Practice, Molding and Casting.
One-third course in Tinsmithing and Pipe-fitting.
One course in Machine-shop Practice, Chipping, Filing and Fitting.

Groups of Engineering Electives for Bachelor of Science Students.

The Electrical Group—(14 Courses).

One course in Mechanic Arts.
One course in Mechanical Drawing.
One course in Machine Design.
One course in Heat, Electricity and Magnetism.
One course in Theory of Dynamos and Motors.
One course in Dynamo-electric Machinery.
One course in Electric Light and Railway Machinery.
Two courses in Development and Utilization of Power.

Three courses in Theoretical Mechanics and Strength of Materials.
One-third course in Power Measurements.
One-third course in Electrical Measurements.
One-third course in Electrical Engineering Laboratory.
One course in Electric Power Plants and Transmission.

The Mechanical Group—(14 Courses).

Two courses in Mechanic Arts.
One course in Mechanical Drawing.
One course in Machine Drawing and Designing.
One course in Machine Design.
One course in Mechanism and Machinery.
One course in Heat, Electricity and Magnetism.
One course in Analytical Chemistry.
Two courses in Development and Utilization of Power.
Three courses in Theoretical Mechanics and Strength of Materials.
One course in Experimental Engineering.

Requirements of the Two-Year Mechanical Course.

General Culture Courses—(11).

4 courses in Mathematics.
1 course in Rhetoric.
1 course in English Literature.
2 courses in Chemistry.
3 courses in Physics.

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11 General Culture Courses.

Technical and Professional Courses—(13).

1 course in Engineering Calculus.
1 course in Elementary Mechanics.
1 course in Strength of Materials.
3⅓ courses in Mechanic Arts and Construction.
1 course in Descriptive Geometry.
1 course in Mechanical Drawing.
1 course in Machine Drawing and Design.
1 course in Machine Design.
1 course in Mechanism and Machinery.
1 course in Technology of Iron and Steel.
⅓ course in Testing Materials.
⅓ course in Power Measurements.

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24 courses required.

Requirements of the Two-Year Electrical Course.

General Culture Courses—(11).

4 courses in Mathematics.
1 course in Rhetoric.
1 course in English Literature.
2 courses in Chemistry.
3 courses in Physics.

Technical and Professional Courses—(13).

½ course in Electrical Measurements.
1 course in Engineering Calculus.
1 course in Elementary Mechanics.
2 courses in Mechanic Arts and Construction.
⅔ course in Electrical Construction.
1 course in Descriptive Geometry.
1 course in Mechanical Drawing.
1 course in Machine Drawing and Design.
1 course in Machine Design.
1 course in Theory of Dynamos and Motors.
1 course in Electric Power Transmission.
⅓ course in Power Measurements.
½ course in Electrical Engineering Laboratory.
1 course in Mechanical Technology.

24 courses required.

The Two-Year Civil and Mining Engineering Certificate Course.

This course includes:

3 courses in Mathematics.
3 courses in English.
3 courses in Chemistry.
3 courses in Physics.

And twelve courses of the student's selection from among the courses announced for the degree of B.S.C.E.

Description of Courses.

Undergraduate Course in Civil and Mining Engineering.

This is a four-year course leading to the degree of Bachelor of Science in Civil Engineering. It has been planned with a view to laying a broad and substantial foundation for the general and technical knowledge needed by practitioners in civil engineering; so that graduates, guided by their theoretical education, and the practical training they may get during the course, may find profitable employment in the line of their profession and develop into useful investigators and scientific constructors.

The work of the students is based upon an extended course on the Mechanics and Economics of Engineering. The object aimed at is to give as thorough a preparation as possible for the general purposes of the profession in the following subjects: The survey, location and construction of railroads, tramways, elevated railroads, tunnels and aqueducts; the design and construction of girder, truss and suspension bridges, of towers, roofs and arches of stone and iron; hydrographical and topographical surveys of rivers and harbors, coast and geodetic surveys; the determination of latitude and longitude and the location of true meridians; the projection of maps, the construction of working drawings, plans and specifications of various engineering structures; the design and construction of machines and the determination of their efficiency; the tests and selection of the materials of engineering; the design and construction of metallurgical works; the surveys of water works, canals, levees, revetments and retaining walls; the construction of coke ovens and the design of coal and coke plants; the construction and superintendence of power and power plants; the economic theories of railroad location and construction track work and the maintenance of way of railroads; the design and construction of hydraulic motors, and a course of instruction in mining, especially adapted to the coal and ore mining peculiar to West Virginia.

Distribution of the Work for the Degree of B.S.C.E.

FIRST YEAR.

HOUR.	FALL.	WINTER.	SPRING.
8.00	Sociology 1	Fr. Hd. Drawing 4	Projection Drawing 1
9.00	Chemistry 1	Chemistry 2, 3	Chemistry 4
10.00	Univ. Algebra 1	Solid Geometry 2	Trigonometry 3
11.00	Rhetoric 1	Rhetoric 2	Eng. Literature 2

Distribution of the Work for the Degree of B.S.C.E.—Continued.

SECOND YEAR.

HOUR.	FALL.	WINTER.	SPRING.
8.00	Anal. Geometry 4	Differ. Calculus 5	Integ. Calculus 6
9.00	Economics 1	Economics 2	Des. Geometry 4
10.00	Physics 2	Physics 3	Physics 4
11.00	Land Survey 2	Des. Geometry 3	Applied Math. 9
1.30 Tu., Th.	An. Chemistry 5	An. Chemistry 6	An. Chemistry 7
1.30 Fr.	Field Practice	Field Practice	Field Practice

THIRD YEAR.

8.00	R. R. Survey 5	R. R. Construction 6	Dynamos and Motors 9
9.00	Mechanics 2	Mechanics 3	Str. of Materials 4
10.00	Top. Survey 10 / Mine Survey 9	Mech. Draw. 11	Roads, S. & P. 7 / Graph. Stat. 8
11.00	Geology 4	Geology 5	Econ. Geology 6
1.30 Fr.	Field Practice	Field Practice	Field Practice

FOURTH YEAR.

8.00	Power 11	Power 12	Thesis 22
9.00	R. & B. Design 12	Hydraulics 17	Civil Eng. 19
10.00	Stereotomy 13	Stereotomy 14	Plans & Spec. 21 / Eng. Jurisp.
11.00	Metallurgy 15 / Mining 16	Bridge Design 18	Railroad Econ. 20
1.30 Sat.	Eng. Lab.	Eng. Lab.	Eng. Lab.

Undergraduate Course in Mechanical Engineering.

This is a four-year course leading to the degree of Bachelor of Science in Mechanical Engineering. It seeks to develop the principles and to prepare for intelligent work involving the design, selection, cost, construction, installation, testing and management of power generators, prime movers, and machinery for manufacturing, transportation and power transmission; the planning, equipment, cost, construction and management of manufacturing plants, shops, factories, and systems of fire protection, lighting, heating and ventilating.

Students pursuing this course may elect either the Mechanical or the Electrical alternative of the fourth year, receiving in either case the degree of Bachelor of Science in Mechanical Engineering. This provision has been made to meet the requirements of those who may wish to specialize in either the steam engineering or the electrical engineering branches of this profession.

Distribution of the Work for the Degree of B.S.M.E.

First Year.

Hour.	Fall.	Winter.	Spring.
8.00	Sociology 1		Proj. Drawing 1
9.00	Chemistry 1	Chemistry 2, 3	Chemistry 4
10.00	Univ. Algebra 1	Solid Geometry 2	Trigonometry 3
11.00	Rhetoric 1	Rhetoric 2	English Literature 2
1.30 Fr.	Forging 4	Foundry 5	Tin and Pipe Fitting 6
8.00 Sat.	Woodworking 1	Woodturning 2	Pattern-Making 3

Second Year.

8.00	Anal. Geometry 4	Differ. Calculus 5	Integ. Calculus 6
9.00	Economics 1	Economics 2	
10.00	Physics 2	Physics 3	Physics 4
11.00			Mechanism 34
1.30	M., W. Mechanical Drawing 21	Mech. Drawing 22	Mech. Drawing 23
1.30 Tu. Th.	Anal. Chem. 5	Anal. Chem. 6	Anal. Chem. 7
8.00 Sat.	Machine Work 7	Machine Work 8	Machine Work 9

Third Year.

8.00	Power 11	Power 12	Dyn. & Motors 9
9.00	Mechanics 2	Mechanics 3	Str. Materials 4
10.00			Mach. Design 31
11.00	Geology 4	Geology 5	
1.30 Tu., Th.	Machine Work 10	Machine Work 11	Machine Work 12
1.30 Fr.	Mach. Drawing 24	Mach. Drawing 25	Mach. Drawing 26
8.00 Sat.	Exper. Mech. 43	Power Meas. 44	Testing Mater. 45

Fourth Year—Mechanical Alternative.

8.00	Thermodynamics 37	Prime Movers 41	Thesis
9.00		Hydraulics 17	Power Trans. 42
10.00	Mach. Design. 32	Boilers 38 Heat. & Vent. 39	Eng'g Jurisp. Mech. Eng. Des. 33
11.00	Mater. of Eng'g. 36		
1.30	M., W., Fr. Drawing and Design 27	Drawing and Design 28	Drawing and Design 29
1.30 T., Th.	Mech. Const. 13	Mech. Const. 14	Mech. Const. 15
8.00 Sat.	Eng. Lab. 46	Eng. Lab. 47	Eng. Lab. 48

Distribution of the Work for the Degree of B.S.M.E.—Continued.

FOURTH YEAR.—ELECTRICAL ALTERNATIVE.

HOUR.	FALL.	WINTER.	SPRING.
8.00	Thermodynamics 37	Prime Movers 41	Thesis.
9.00	Dyn.-Elec. Mach. 49	Hydraulics 17	Power Trans. 42
10.00	Mach. Design 32	El. Light and Railway Mach. 50, 51	Mech. Eng. Des. 33 / Eng'g Jurisp.
1.30 M., W., Fr.	Drawing and Design 27	Drawing and Design 28	Elect. Meas. 9
1.30 T., Th.	Elect. Const. 16	Elect. Const. 17	Elect. Eng. Lab.
8.00 Sat.	El. Eng. Lab. 52	El. Eng. Lab. 53	Eng. Lab. 48

Manual Training Courses.

The first group consists of one full course of shop practice in wood and metal working (Courses 1, 2, 3, Mechanical Engineering). The second group consists of one full course in mechanical drawing (Courses 21, 22, 23, Mechanical Engineering), and three full courses of shop practice in wood and metal working (Courses 1, 2, 3, 4, 5, 6, 7, 8, 9, Mechanical Engineering). These courses aim to present the simple elements of some of the constructive arts which admit of being developed into a logical series of exercises. Their merit is chiefly educational rather than as possessing any intrinsic value in relation to the several branches of handicraft work from which they are taken. The primary object is the training of the eye to see the form of objects, and of the hand to produce such forms in the materials most commonly used in constructive work. At the same time the student is acquainted with the use of the fundamental tools and with the accuracy called for in the production of the elements of construction and of simple combinations of the same in fitting parts of the work together. There is sufficient instruction in handicraft work and practice to form a proper foundation for the more advanced work with machine tools in mechanical construction, and these courses are, therefore, required of all students taking the full course in Mechanical Engineering.

Groups of Engineering Electives for Bachelor of Science Students.

These consist of fourteen full courses in the applied sciences and engineering. They are preferably taken in such groups that they may have a proper sequence in the departments in which they are chosen. They have been arranged to meet the requirements of those candidates

for the degree of Bachelor of Science who prefer to take their fourteen elective courses in engineering branches, and for those who look forward to becoming candidates for an engineering degree.

Students who can command the time and the resources to pursue the four-year course leading to the degree of Bachelor of Science will find it the best possible preparation for an engineering education and future professional work. After receiving the degree of Bachelor of Science the graduate will receive one of the regular baccalaureate degrees in engineering upon completion of the remaining sixteen technical and professional courses. This work will require four quarters. A further resident period of three quarters spent in satisfactory work will entitle the graduate to a professional engineering degree.

The Two-Year Mechanical and Electrical Certificate Courses.

These consist of twenty-four full courses, eleven of which are in general culture studies similar to those pursued by the candidates for the engineering degrees, and given by the College of Arts and Sciences; the remaining thirteen courses consist of technical studies and practical work, given by the College of Engineering and the Mechanic Arts. They meet a demand for special training in the elements of engineering science and mechanical technology on the part of an increasing number of young men engaged as artisans, draughtsmen and engineers in the mechanical industries and trades. They will be found adapted also to the requirements of those in charge of the power plants of manufacturing and other industries and of central-station men engaged in electric light, power and railway work. A certificate of proficiency will be given the student upon satisfactorily completing the work of the several branches in either of these two-year courses. If at any time the student should return to the University to become a candidate for the degree of Bachelor of Science in Mechanical Engineering, he should first complete the entrance requirements for admission to this degree course as set for that year. He will then be admitted as a candidate for this degree. Following this, he will take such courses as are set forth in the regular four-year course of study required for this degree, but he will be given credit for similar or accepted equivalent courses of study previously passed upon in the two-year course. He will not be required to pursue any of the previous two years of work a second time. He will be admitted to such advanced standing as he may be entitled to in the regular four-year course.

Distribution of Work for Mechanical Certificate.

First Year.

HOUR.	FALL.	WINTER.	SPRING.
9.00	Chemistry 1	Chemistry 2, 3	Mach. Des. 30
10.00	Univ. Algebra 1	Solid Geometry 2	Trigonometry 3
11.00	Rhetoric 1	Des. Geometry 3	Eng Literature 2
1.30	M., W. Mech. Drawing 21	Mech. Drawing 22	Mech. Drawing 23
1.30	Fr. Forging 4	Foundry 5	Machine Work 7
8.00	Sat. Woodworking 1	Woodturning 2	Pattern-Making 3

Second Year.

8.00	Anal. Geometry 4		
9.00		Mech. Tech. 35	Str. of Mater. 4
10.00	Physics 2	Physics 3	Physics 4
11.00	Eng. Calculus 14	Elem. Mechanics 1	Mechanism 34
1.30	Tu., Th. Machine Work 10	Machine Work 11	Machine Work 12
1.30	Fr. Mach. Drawing 24	Mach. Drawing 25	Mach. Drawing 26
8.00	Sat. Mach. Work 7	Power Meas. 44	Testing Mater. 45

Distribution of Work for Electrical Certificate.

First Year.

HOUR.	FALL.	WINTER.	SPRING.
9.00	Chemistry 1	Chemistry 2, 3	Mach. Des. 30
10.00	Univ. Algebra 1	Solid Geometry 2	Trigonometry 3
11.00	Rhetoric 1	Des. Geometry 3	Eng. Literature 2
1.30	M., W. Mech. Drawing 21	Mech. Drawing 22	Mech. Drawing 23
1.30	Fr. Forging 4	Foundry 5	Machine Work 7
8.00	Sat. Woodworking 1	Woodturning 2	Pattern-Making 3

Second Year.

8.00	Anal. Geometry 4		Dyn. & Motors 9
9.00		Mech. Tech. 35	Power Trans. 42
10.00	Physics 2	Physics 3	Physics 4
11.00	Eng. Calculus 14	Elem. Mechanics 1	
1.30	M., W., Mach. Drawing 24		
1.30	T., Th. Elect. Const. 16	Elect. Const. 17	Elec. Eng. Lab.
1.30	Fr. Mach. Drawing 24	Mach. Drawing 25	Elec. Meas. 9
8.00	Sat.	Power Meas. 44	Eng. Lab. 48

Graduate Course for the Degree of Mechanical Engineer.

This comprises advanced work in Mathematical Physics with particular reference to the sciences of Thermodynamics, Hydrodynamics, Electricity and Magnetism, and to their respective applications in engineering development, design and construction. Designs of steam, hydraulic and electrical machinery, as well as of power and manufacturing plants, will be submitted, with complete sets of drawings and blue prints, specifications, bills of material and estimates for some one completed project in these fields. A review will be made of industrial, manufacturing and power-plant systems, and a report submitted, with special attention given to the economic features of such engineering projects.

Graduate Course for the Degree of Civil Engineer.

This course will comprise eight full courses of advanced civil engineering studies and work, and a graduating thesis. These courses may be selected from the advanced and the graduate courses offered by the department of Civil Engineering. Similar graduate courses offered by the other departments of this College may be selected to accompany the Civil Engineering graduate courses if, after conference, they shall be accepted as satisfactory to the head of this department.

Theses.

Every candidate for a baccalaureate or a graduate degree in Engineering will be required to prepare a thesis on some subject relating to a special branch of engineering or other department of applied science. The thesis must be either a design or a review of some machine, structure or process belonging to some department of scientific investigation. It must be fully elaborated and accompanied by the necessary working drawings or models required for the proper elucidation of the subject of the thesis.

With its accompanying drawings it will be presented first to the professor under whose guidance it has been prepared. It must be accepted by the head of that department in which the degree is to be conferred. A typewritten copy of the thesis, prepared according to the official specifications for theses, must be placed in the University Library before graduation.

Special Students.

Deserving young men who have not the time or are otherwise unable to take the full course will be allowed to take a special or partial

course, consisting of such studies as they are prepared to take up, provided that such partial course shall have been submitted to the Faculty and approved by them.

Young men under twenty-one years of age desiring to take special courses in the College of Engineering and the Mechanic Arts are required to present the same qualifications as candidates for one of the regular courses in this College. Young men twenty-one years of age or over who are not candidates for an Engineering degree, but who wish to pursue special studies along engineering lines, will be permitted to do so upon giving satisfactory evidence that they are prepared to take the desired studies advantageously; but if they subsequently desire to become candidates for a degree or to take a regular course in engineering they must pass the required entrance examinations for that year.

Engineering Society.

The Engineering Society is organized in connection with the Engineering departments. It is conducted by the students of these departments, and meets once a week. Its object is the investigation and discussion of scientific subjects. All engineering students are requested to join this organization and perform such work as its rules require. Students taking either of the four-year courses leading to the baccalaureate degrees in Engineering are expected to engage actively for three years in the work of the Society.

Engineering students are further recommended to select suitable groups of the synoptic lectures offered by the University and given weekly throughout the year.

DEPARTMENTS OF INSTRUCTION.

Each of the courses of instruction offered by the Engineering departments is known as a full course unless otherwise stated; that is, a course of five class exercises a week for one quarter, or their equivalent in laboratory or other practical work. When no instructor's name is appended to a course, such course will be given by the head of the department.

The following branches of applied science and engineering are represented in the courses offered by the Engineering departments:

Applied Mathematics.
Civil Engineering.
Designing.
Drawing.
Electrical Engineering.
Experimental Engineering.
Hydraulic Engineering.
Mechanics.
Mechanic Arts.
Mechanical Engineering.
Metallurgy.
Mining Engineering.
Municipal Engineering.
Railroad Engineering.
Sanitary Engineering.
Steam Engineering.
Structural Engineering.
Surveying.

Civil and Mining Engineering.

PROFESSOR JOHNSTON AND MR. MORRIS.

Courses for Undergraduates.

1. Projection Drawing. Orthographic projections in one quadrant; elementary problems in shades and shadows; isometric and oblique projections. Lectures and recitations. Drawing-room work. Warren's "Industrial Drawing," part III, and Faunce's "Descriptive Geometry." Required of Civil Engineering Freshmen.

Spring, 8.00; 14 S.

2. Land Surveying. Theory and practice of land surveying; magnetic variations; calculating the content; retracing old lines; division of lands; establishment of meridians; care and use of instruments; mapping the survey; field practice. Lectures and recitations. Gillespie's "Surveying." Required of Civil Engineering Sophomores.

Mr. Morris. Fall, 11.00; 14 S.

3. Descriptive Geometry. Orthographic projections in the four quadrants; problems of the point, line and plane; tangencies and the development of single-curved surfaces. Warren's text-books. Required of Civil Engineering Sophomores. Mr. Morris. Winter, 11.00; 14 S.

4. Descriptive Geometry. Single-curved, double-curved and warped surfaces; intersections, tangencies and developments; shades, shadows and perspective. Lectures and recitations. Warren's text-books. Required of Civil Engineering Sophomores.
Mr. Morris. Spring, 9.00; 14 S.

5. Railroad Surveying. Theory and practice of railroad surveying. Lectures, recitations and field work. Searles. Required of Civil Engineering Juniors. Mr. Morris. Fall, 8.00; 14 S.

6. Railroad Construction and Maintenance. Tunnels, trestles, track work, earth work, signalling, graduation, masonry, etc. Tratman's "Track and Trac' work." Required of Civil Engineering Juniors.
Mr. Morris. Winter, 8.00; 14 S.

7. Roads and Pavements. Location, construction and maintenance; study and comparison of the various types of roads; road-making material. Lectures. Required of Civil Engineering Juniors.
Half course. Mr. Morris. First term, Spring, 10.00; 14 S.

8. Graphic Statics. Graphic method of determining stresses, moments and shears in roof and bridge trusses. Merriman's "Roofs and Bridges," part II. Required of Civil Engineering Juniors.
Half course. Mr. Morris. Second term, Spring, 10.00; 14 S.

9. Mine Surveying. Theory and practice of underground surveying. Lectures and recitations. Required of Civil Engineering Juniors. Half course. Mr. Morris. First term, Fall, 10.00; 14 S.

10. Topographical Surveying. Theory and practice of topographic, hydrographic and barometric surveying, city surveying, etc. Lectures and recitations. Gillespie's "Higher Surveying." Required of Civil Engineering Juniors.
Half course. Mr. Morris Second term, Fall, 10.00; 14 S.

11. Mechanical Drawing. Engineering drawing, detail shop drawings, etc. Laboratory. Thorne's "Senior Course in Mechanical Drawing." Required of Civil Engineering Juniors.
Mr. Morris. Winter, 10.00; 14 S.

12. Roof and Bridge Design. Determinations of stresses, shears and bending moments, in various types of roof and bridge trusses by analytic methods. Lectures and recitations. Merriman's "Roofs and Bridges," parts I and III. Required of Civil Engineering Seniors.
Fall, 9.00; 14 S.

13. Stereotomy. Stone-cutting, plain and decorative. Recitation and Laboratory. Warren's "Stone Cutting." Required of Civil Engineering Seniors. Prerequisites, Courses 3, 4, 8. Fall, 10.00; 14 S.

14. Stereotomy. Stone cutting; pattern-making; cutting stones in clay. Laboratory. Warren's "Stone Cutting." Required of Civil Engineering Seniors. Prerequisites, Courses 3, 4, 8, and 13.
Half course. First term, Winter, 10.00; 14 S.

15. Metallurgy. The metallurgy of iron and steel. Required of Civil Engineering Seniors. Half course. First term, Fall, 11.00; 14 S.

16. Mining Engineering. Coal and ore mining peculiar to the bituminous coal regions; the inception, construction and operation of mining plants; the gases of coal mines and their treatment. Lectures and recitations. Required of Civil Engineering Seniors.
Half course. Second term, Fall, 11.00; 14 S.

17. Hydraulics. Theoretic pressure and energy of water; flow of water through orifices, tubes and weirs; flow in conduits, pipes, canals, brooks, and rivers; current meters, water motors, water wheels, and naval hydromechanics. Lectures and recitations. Merriman's "Hydraulics." Required of Civil and Mechanical Engineering Seniors.
Winter, 9.00; 14 S.

18. Bridge Design. Complete designs of the plate girder and the Pratt truss. Recitations, lectures and laboratory. Merriman's "Roofs and Bridges," parts III and IV. Required of Civil Engineering Seniors.
Winter, 11.00; 14 S.

19. General Engineering Construction. Materials of engineering; foundations; retaining walls; masonry and pile construction, etc. Lectures and recitations. Required of Civil Engineering Seniors.
Spring, 9.00, 14 S.

20. Railroad Economy. General theory of railroad location and construction, from the inception of the project to the completion; effects of grades, curvature and distance on operating expenses and revenue; railroad finance and management. Lectures. Required of Civil Engineering Seniors. Spring, 11.00; 14 S.

21. Plans and Specifications. General forms for plans and specifications; local, customary and legal aspects. Lectures. Required of Civil Engineering Seniors.
Half course. Second term, Spring, 10.00; 14 S.

22. Thesis. Required of Civil Engineering Seniors.

Courses for Graduates.

HOURS TO BE ARRANGED.

23. Bridge Design. Double trusses; arched upper chords.

24. Bridge Design. Suspension, cantilever and swing bridges.

25. Sanitary Engineering. Sewers and drains; house drainage; sewage disposal.

26. Heating and Ventilation of Buildings.

27. Masonry. Dams, foundations, arches, piers, and abutments.

28. Engineering Drawing and Design.

29. Building Superintendence. Detail study of construction and methods. Half course.

30. Steel Framed Structures. Elevated roads, water towers, high buildings, inclines.

31. Thesis. One course. Required of candidates for the degree of C.E.

Mechanical Engineering and Mechanic Arts.

PROFESSOR ALDRICH, MR. JONES, AND MR. WEST.

Courses for Undergraduates.

1. Woodworking. Instruction is given in carpentry, joinery and other bench work; exercises with the fundamental edge tools in soft and hard woods, in different directions with respect to the grain, and in matching, molding, jointing and making typical framed work.
One-third course. Fall, Saturday, 8 to 12.

2. Woodturning. Comprises the fundamental geometric forms in soft and hard woods; fitting forms of reversed curves; face plate work, chucking, boring, finishing and polishing, and elements of pattern-making. One-third course. Winter, Saturday, 8 to 12.

3. Pattern-Making. Applies the foregoing instruction in its relation to patterns for machine construction, considers the types of patterns and usual allowances for draft, shrinkage and finish, with exercises in making patterns of machine elements and other work to be executed later in the machine shop.
One-third course. Spring, Saturday, 8 to 12.

4. Forging. Exercises in drawing out and sizing, forming, welding, jointing and fitting iron; steel forging, tempering, annealing; making typical tools to be used later in the machine shop; manner of working forges; determining quality of iron and steel and strength of the students' welded joints

One-third course. Fall, Friday, 1.30 to 5.30; Spring, Saturday, 8 to 12.
Mr. West.

5. Foundry. Molding and casting in connection with pattern-making; selection, preparation and use of molding, facing and parting sands; use of typical molders' tools and appliances; making castings from exercise patterns and from those for machine work.

One-third course. Winter, Friday, 1.30 to 5.30.

6. Tinsmithing and Pipe-Fitting. Brazing, tinning, forging and use of coppers; seamless and solder-jointed work in tin and sheet-iron; laying out; cutting and forming sheet-metal; solder joints for electrical fitting; bending and coiling pipe; making joints and use of packing; drilling and tapping for pipe and bolt holes in boiler plate; soft and hard patches; tank and boiler riveting; caulking and tube expanding. One-third course. Spring, Friday, 1.30 to 5.30.
Mr. West.

7, 8, 9. Machine Work. Iron work at the bench, chipping, filing, fitting, scraping, polishing; key-seating; formation of straight-edges, surface-plate, gauges, and machinists' small tools. Handwork with machine tools, drilling, tapping; machine tool work with the drill-press, lathe, shaper. Fall, Winter, Spring, Tuesday, Thursday, 1.30.

10, 11, 12. Machine Tool Work. A continuation of Courses 7, 8, 9, Mechanical Engineering; advanced machine tool work with drill-press, lathe, shaper, planer, emery grinder, and milling machine; production of finished machine elements and interchangeable parts; reproduction of typical details of machine tools and other workshop appliances. Fall, Winter, Spring, Tuesday, Thursday, 1.30.

13, 14, 15. Mechanical Construction. Reproduction of typical details of steam-engine and other motive-power machinery; work from original designs; manufacture of special apparatus for shop and laboratory use; practice in building, assembling and erecting workshop and engineering appliances, motive-power machinery and accessories, and in attendance on the same.

Fall, Winter, Spring, Tuesday, Thursday, 1.30.

16. Electrical Construction. Mechanical repairs to dynamos and motors, babbitting and boring out bearings, fitting brushes, truing commutators; winding field coils; making switches and rheostats.

One-third course. Fall, Tuesday, Thursday, 1.30.

17. Electrical Construction. Fitting up and repairing arc lamps; running arc, incandescent, bell and telephone circuits; fitting up switchboards; winding armatures.

One-third course. Winter, Tuesday, Thursday, 1.30.

21. Mechanical Drawing. Plain lettering, care and use of drawing instruments, selected geometric constructions, line exercises, finished drawings. Mimeographed notes, blue prints, and Tracy's "Mechanical Drawing." One-third course. Fall, Monday, Wednesday, 1.30; Summer, month of July, Tuesday, Thursday, 1.30 to 5.30; Saturday, 8 to 12.

Mr. Jones.

22. Mechanical Drawing. Isometric, cabinet, and orthographic projection, perspective and simple working drawings. Prerequisite, Course 21, Mechanical Engineering. Tracy's "Mechanical Drawing."

One-third course. Winter, Monday, Wednesday, 1.30; Summer, August 1 to 25, Tuesday, Thursday, 1.30 to 5.30. Saturday, 8 to 12.

Mr. Jones.

23. Mechanical Drawing. Working drawings from models and blue prints, tracing and blue printing; details of mechanical movements worked out in Course 34, Mechanical Engineering. Prerequisite, Course 22, Mechanical Engineering.

One-third course. Spring, Monday, Wednesday, 1.30; Summer, August 26 to September 22, Tuesday, Thursday, 1.30 to 5.30; Saturday, 8 to 12.

Mr. Jones.

24, 25. Machine Drawing. Conventional methods, detail and assembled drawings of machine parts from sketches, tracings and blue printing. Prerequisite, Course 23, Mechanical Engineering. Lectures and drafting. Two-thirds course. Fall and Winter, Friday, 1.30 to 5.30; Summer, July 1 to August 25, Tuesday, Thursday, 1.30 to 5.30; Saturday, 8 to 12.

Mr. Jones.

26. Machine Drawing. Working drawings of machine parts, etc., developed in Machine Design 31. Prerequisite, Courses 24, 25, Mechanical Engineering.

One-third course. Spring, Friday, 1.30 to 5.30; Summer, August 26 to September 22, Tuesday, Thursday, 1.30 to 5.30; Saturday, 8 to 12.

Mr. Jones.

27. Drawing and Designing. Complete drawings of machines developed in Course 32, Mechanical Engineering. Prerequisite, Course 26, Mechanical Engineering.

Two-thirds course. Fall, Monday, Wednesday, Friday, 1.30.

Mr. Jones.

28. Drawing and Designing. Drawing-room practice supplementing Course 32 and accompanying Courses 38 and 41, Mechanical Engineering; complete drawings of engines are made from calculations and designs worked out in the above courses. Students taking the electrical alternatives are allowed to specialize. Prerequisite, Course 31, Mechanical Engineering.

Two-thirds course. Winter, Monday, Wednesday, Friday, 1.30. Mr. Jones.

29. Drawing and Designing. Structural designing; drawing-room practice accompanying Course 33, Mechanical Engineering; specialized engineering drawing. Prerequisite, Course 28, Mechanical Engineering. Reference is made chiefly to blue prints of actual power, manufacturing and other plants and installations.

Two-thirds course. Spring, Monday, Wednesday, Friday, 1.30. Mr. Jones.

30. Elementary Machine Design. Elementary course specially arranged to meet the common requirements of the two-year electrical and mechanical students. Prerequisite, Course 3, Mathematics. Lectures and recitations. Spring, 9.00. Mr. Jones.

31. Machine Design. Elements of machine design, conventional and rational; adaptation of commercial sizes; proportioning fastenings, flanges, riveted joints, bearings, rotating pieces, connecting links, machine supports; influence of material and treatment on design. Supplemented by Course 26, Mechanical Engineering. Prerequisite or accompanying Course 4, Mechanics. Lectures and recitations. Smith's "Machine Design," F. R. Jones' "Machine Design," part II.

Spring, 10.00; Summer, 8.00. Mr. Jones.

32. Machine Design. Analysis and design of valves and valve gears; heavy transmission, conveying and manufacturing machinery; proportioning parts of steam engine. Supplemented by Course 27, Mechanical Engineering. Specifications, bills of material and estimates for important machines designed in course. Prerequisite, Course 31, Mechanical Engineering. Lectures and recitations. Peabody's "Valves and Valve Gears," Whitham's "Steam-Engine Design," trade catalogues and technical journals. Fall, 10.00. Mr. Jones.

33. Mechanical Engineering Design. Embodies the details of the earlier courses of instruction in Prime Movers and motive-power machinery in respect to the design of steam and electric power and hydraulic plants for power transmission and manufacturing purposes; location of the plant; selection, arrangement, subdivision into units and installation; economics, organization and management of power and manufacturing plants; engineering specifications and æsthetics of engineering design. Lectures and accompanying Course 29, Mechanical Engineering. Half course. Spring, first term, 10.00.

34. Mechanism and Machinery. (a) Analysis and classification of mechanism, diagrams and relative velocities of machine parts; principles of transmission and change motions by linkages, rolling contact, toothed gearing, couplings, belt gearing, cams, parallel and straight-line motions; analysis of motions in simple machines. Supplemented by practical applications, Course 23, Mechanical Engineering. (b) Classification of machinery, with especial attention to workshop appliances, machine tools and machinery of transmission. Prerequisite, Course 3, Mathematics. Lectures and recitations. F. R. Jones' "Machine Design," part I, technical journals and trade catalogues.

Spring, 11.00; Summer, 9.00. Mr. Jones.

35. Mechanical Technology. The principles, appliances, methods and economics of workshop production; the use of iron and steel in mechanical construction; adaptation of cutting tools to material and work; shop-order systems and cost accounts. Winter, 9.00.

36. Materials of Engineering. The metallurgy of iron and steel manufacture; the use of iron and steel in engineering construction; specifications, inspection, qualitative and quantitative methods of testing materials of engineering. J. B. Johnson's "Materials of Construction." Fall, 11.00.

37. Thermodynamics of Engineering. Mechanical theory of heat; thermodynamics of gases and vapors, with special application to steam and other heat engines, air and refrigeration. Prerequisites, Courses 11 and 12, Mechanics. Lectures, recitations and laboratory, Course 46, Mechanical Engineering. Peabody's "Thermodynamics of the Steam Engine." Fall, 8.00. Professor Aldrich or Mr. Jones.

38. Steam Boilers. Heating value of fuels, combustion, economical production of steam; application of theory and practice in the design of steam boilers, chimneys and accessories; steam piping and distribution. Prerequisite, Course 31, Mechanical Engineering. Lectures, recitations and laboratory, Course 47, Mechanical Engineering. Peabody & Miller's "Steam Boilers."

Half course. First term, Winter, 11.00. Mr. Jones.

39. Heating and Ventilating. Principles, comparative merits and design of the various systems of ventilating, heating by hot air, hot water, steam and electricity; a careful study of the systems in the different University buildings. Prerequisite, Course 4, Physics. Lectures, recitations and laboratory, Course 47, Mechanical Engineering. Carpenter's "Heating and Ventilating Buildings."

Half course. Second term, Winter, 11.00. Mr. Jones.

40. Heating and Ventilating. Special course for prospective heating and ventilating engineers. Open to those completing Course 39, Mechanical Engineering. Lectures and Laboratory work. Time to suit convenience of students. Mr. Jones.

41. Prime Movers. Expansive working of steam, principles of design, construction and operation of steam engines, pumping engines, motive-power machinery, turbines, hydraulic motors and machinery. Prerequisite, Courses 32 and 37, Mechanical Engineering. Lectures, recitations and laboratory, Course 47, Mechanical Engineering.

Winter, 8.00. Professor Aldrich or Mr. Jones.

42. Power Transmission. Generation, transmission, distribution of electric power: comparison with other systems; economics of location, selection, arrangement, subdivision into units and installation of steam and electric power. Bell's "Electric Power Transmission." Lectures and accompanying Course 48, Mechanical Engineering.

Spring, 9.00; Summer, 8.00.

43. Experimental Mechanics. The comparison of experimental results and determination of physical laws from observation; theory, calibration and use of slide rule and instruments for the measurement of length, area, volume, weight, power, speed, and pressure; experimental work in kinematics, statics, dynamics, mechanisms and machinery. Prerequisite or accompanying Course 2, Mechanics. One-third course. Carpenter's "Experimental Engineering."

Fall, Saturday, 8 to 12. Mr. Jones.

44. Power Measurements. Efficiency tests of simple engines, pumps, dynamos, motors and machinery of power transmission; measurements of power by Prony brake, rope brake, Alden absorption dynamometer, transmitting dynamometer; steam-engine indicator practice and simple valve setting; determination of the quality of steam. Prerequisite or accompanying Course 12, Mechanics.

One-third course. Winter, Saturday, 8 to 12. Mr. Jones.

45. Testing Materials of Engineering. Tensile, compressive and transverse tests of wrought iron, cast iron, steel and timber; transverse, compressive and absorption tests of stone and brick; tensile, compressive, specific gravity and absorption tests of cement; also tests for fineness, time of setting and constancy of volume; testing lubricating value of oils, including composition, viscosity, specific gravity, flash and burning tests, cold test and coefficient of friction. Prerequisite or accompanying Course 4, Mechanics.

One-third course. Spring, Saturday, 8 to 12. Mr. Jones.

46. Mechanical Engineering Laboratory. Experimental work in thermodynamics, tests of thermometers, indicators, injectors, calorimeters, steam and oil separators, non-conducting coverings, flow and quality of steam, coal calorimetry, analysis of chimney gases; practice in valve setting, behavior of steam in the cylinder; or such other work as may be assigned. To form a part of and time to be assigned from Course 37, Mechanical Engineering.

Fall, time as assigned. Mr. Jones.

47. Mechanical Engineering Laboratory. Economy tests of simple and multiple expansion working of the steam engine, condensing and non-condensing; steam boilers, fired with gas and coal; steam heating apparatus; duty trials of steam pumps; efficiency tests of hydraulic motors, fans, blowers, etc.; application of Hirn's analysis to the steam engine; flow of water through pipes and orifices, calibration of water meters. To form a part of and time to be assigned from Courses 38, 39, and 41, Mechanical Engineering.

Winter, time as assigned. Mr. Jones.

48. Mechanical Engineering Laboratory. Combined tests of performances of boilers, engines and of electrical and other power transmission machinery; testing of plants away from the University when opportunity affords; special research work. To form a part of and time to be assigned from Course 42, Mechanical Engineering.

Spring, time as assigned. Professor Aldrich and Mr. Jones.

49. Dynamo-Electric Machinery. Principles of design, construction and operation of dynamos, motors and transformers. Prerequisite, Course 9, Physics, and to accompany Course 52, Mechanical Engineering. Jackson's "Electro-Magnetism and the Construction of Dynamos," and "Alternating Currents and Alternating Current Machinery." Summer, Fall, 9.00.

50. Electric Lighting. Principles of design, construction, installation and operation of electric-lighting systems; electrical distribution for lighting circuits; manufacture, care and use of arc and incandescent lamps. Prerequisite, Course 9, Physics, and to accompany Course 53, Mechanical Engineering. Crocker's "Electric Lighting."

Half course. Second term, Winter, Summer, 10.00.

51. Electric Railroads. Principles of design, construction, installation, operation and management of electric railway machinery and electric railroad systems, and distribution for railway circuits. Prerequisite, Course 9, Physics, and to accompany Course 53, Mechanical Engineering. Bell's "Power Distribution for Electric Railroads."

Half course. Second term, Winter, Summer, 10.00.

52, 53. Electrical Engineering Laboratory. Practical management of electrical machinery; coupling generators; calibration of electrical engineering measuring instruments; switch-board tests; determination of efficiencies and characteristics in laboratory and commercial tests of dynamos and motors; comparison methods; investigation of losses; location of faults; testing arc and incandescent lighting circuits. Prerequisite, Course 9, Physics, and Course 44, Mechanical Engineering. To accompany Courses 49, 50 and 51, Mechanical Engineering. Time to be assigned from same. Parham & Shedd's "Shop and Road Testing of Dynamos and Motors." Fall, Winter.

54. Thesis. Required of candidates for the degree of Bachelor of Science in Mechanical Engineering. Conference work. Spring, 8.00.

Courses for Graduates.

HOURS TO BE ARRANGED.

55. Steam Engineering. Prerequisite, Courses 37, 38, 41, Mechanical Engineering. Fall.

56. Electrical Engineering. Prerequisite, Course 9, Physics, and Course 49, Mechanical Engineering. Winter.

57. Mechanical Engineering Design. Prerequisite, Course 33, and to accompany Course 55, Mechanical Engineering. Fall.

58. Mechanical Engineering Design. Prerequisite, Course 33, and accompanying Course 56, Mechanical Engineering. Winter.

59. Mechanical Engineering Laboratory. Prerequisite, Courses 46, 47, 48, and to accompany Course 55, Mechanical Engineering. Fall.

60. Mechanical and Electrical Engineering Laboratory. Prerequisite, Course 59, and to accompany Course 56, Mechanical Engineering. Winter.

61. Mechanical Engineering Practice. Lectures. Spring.

62. Mechanical Engineering Review and Reports. Lectures and field work. Spring.

63. Thesis. Required of candidates for the degree of Mechanical Engineer.

Mechanics and Applied Mathematics.

PROFESSOR EMORY.

1. Elementary Mechanics. The principles of rational mechanics with little use of the calculus, and from the physical standpoint. For students pursuing the two-year certificate Mechanical or Electrical course, and those preparing for the work of the artisan, foreman or draughtsman. Prerequisite, Trigonometry. Winter, 11.00; 2 M.

2. Kinematics and Dynamics. The mathematical study of motion and rest, including translation, rotation, vectors, uniform and variable velocities and accelerations, and the geometrical study of the motion of a material point. Dynamics, study of mass, density, moments and centers of mass, and the determination of centers of gravity, momentum, force, and energy. Required of Civil and Mechanical Engineering Juniors. Prerequisite, Calculus. Fall, 9.00; 2 M.

3. Statics and Kinetics. Concurrent forces, stability of chimneys, towers, earth work, jointed frames, graphical methods and method

of sections for determining stresses in structures, friction and constraints, principle of virtual work, theory of attraction and potential, kinetic and potential energy, momentum, impact, work, power, center of gyration, moments of inertia, kinetics of masses and problems in practical selective design. Required of all Civil and Mechanical Engineering Juniors. Prerequisite, Course 2. Winter, 9.00; 2 M.

4. **Applied Mechanics.** Strength of Materials. Resistance and elasticity of materials, pipes, cylinders, and riveted joint, cantilever and simple beams, tension and compression, resilience, shear and torsion, strength of timbers, iron, steel, stone, cement, elastic limit, factors of safety. Design of simple structures. Required of all Civil and Mechanical Engineering Juniors. Prerequisite, Course 3. Spring, 9.00; 2 M.

5. **Mechanics of Engineering.** An advanced course in the mechanics of engineering and of engineering materials, with designs of structures, machines and apparatus, involving their use and selection. For Seniors having preparation, and for graduate students.

6. **Consulting Engineering.** The study of engineering problems, *ensemble* and in detail, with estimates for installation and economical management. For graduates and Seniors with suitable preparation.

7. **Materials of Construction.** Strength and elasticity; safe loads; changes under different conditions, etc.

8. **Industrial Plants.** The economic study of industrial plants from the engineer's standpoint. Installation and management. For graduates. Half course.

9. **Applied Mathematics.** This course accompanies the Sophomore work in Pure Mathematics in the Engineering course, and is intended to furnish the applications of Mathematics as a basis for the future engineering studies, and particularly as an introduction to the study of theoretical and applied Mechanics, being the mathematical study of motion, and the solution of differential equations as occurring in the theoretical Mechanics. Required of Civil Engineering Sophomores. Prerequisite, Analytical Geometry. Spring, 11.00; 2 M.

10. **Method of Least Squares.** Errors of observation; principle of probability; weight of observations; principle of least squares; probable errors of observations. Optional for Seniors and graduates. Prerequisite, Calculus. Half course. 2 M.

11. **Development and Utilization of Power.** Lecture course. History and development of the pumping engine, railroad engine, naval, steam, hot air, gas, oil, wind, and hydraulic engines for all classes of work; modern generator. Open to all students. Required of Civil Engineering Seniors and Mechanical Engineering Juniors, and optional for graduates. Fall, 8.00; 2 M.

12. Development and Utilization of Power. Text-book course. Mathematical study of the development of power, the Clausius, Rankine and physical methods of the development of power, measurement of power, testing of apparatus and generators, power-plant installation, and selective design. Complete calculations for power plant to perform some special work, such as water supply, coal handling, mine operation, etc. Prerequisites, Course 3 and Calculus. Required of all Senior Civil and Mining Engineers, and of all Junior Mechanical and Electrical Engineers, and optional for graduates. Winter, 8.00; 2 M.

13. Development and Utilization of Power. Advanced consulting course in power with economical study from the standpoint of the engineer, owner and contractor. Optional for graduates.
Half course. 2 M.

14. Engineering Calculus. The application of the simple rules of the Calculus to engineering formulæ and processes of the Mechanics. Special course for and required of Sophomores in the two-year certificate Mechanical and Electrical course. Prerequisite, Analytical Geometry.
Fall, 11.00; 2 M.

15. Mathematical Theory of Heat. Optional course for Seniors having preparation and for graduates. Prerequisite, Calculus.
Half course. 2 M.

16. Mathematical Theory of Electricity. Mathematical theory of the direct and alternating current, condensers, transformers, motors, etc. Optional for Seniors and graduates. Prerequisite, Calculus.
Half course. 2 M.

17. Hydraulic Motors. Mathematical study of hydraulic motors. Optional for Seniors and graduates. Prerequisite, Analytical Geometry.
Half Course. 2 M.

18. Applied Mathematics. An advanced course in the applications of the Calculus to Engineering problems, introductory to differential equations. Half course. 2 M.

19. Differential Equations. A more extended course than Course 9, above, consisting of the solution of differential equations in general, including the special applications to Mechanics and the discussion of the differential equation in general. Prerequisite, Pure Mathematics, Course 6; or may be taken during the same quarter with Course 6. Half or full course. Time to be arranged. 2 M.

20. Higher Mathematics. A course in general Higher Mathematics, including vector analysis, quaternions and hyperbolic functions, etc. Prerequisite, Differential Equations, Course 19, above.
Half or full course. Time to be arranged. 2 M.

Summer Courses in Engineering and Mechanic Arts.

The following courses are offered in the respective departments of this College for the summer of 1899, beginning July 1:

Civil and Mining Engineering.

Projection Drawing;
Descriptive Geometry;
Land Surveying;
Mine Surveying;
Topographical Surveying;
Railroad Surveying;
Masonry;
Bridge Design;
Sanitary Engineering.

Mechanical Engineering and Mechanic Arts.

Mechanical and Machine Drawing, Machine Design.

Mechanism and Machinery.

Dynamo-Electric Machinery, Power Transmission, and Electric Light and Railroads.

Engineering students, both regular and special, will be allowed to substitute for the actual hours of practical work in any one year an equivalent summer term period of six weeks or of twelve weeks of such equivalent work as they may be prepared to take.

Special work in any of these lines may be ta' en under the direction of the head of the department. Credit will be given for the amount of work satisfactorily done. Such work may be so arranged that students may complete any one of the several courses of practical work offered in six weeks of four hours of actual work daily, or in the twelve weeks of the summer quarter of two hours of actual wor'; daily.

Special Engineering Lectures by Non-Resident Lecturers. 1898-9.

John T. Hayford, United States Coast and Geodetic Survey, Washington, D. C. Two lectures. Subject: "The Transcontinental Triangulation along the 39th Parallel."

Walter B. Snow, Mechanical Engineer, Boston, Mass. Subject: "The Influence of Mechanical Draft upon the Ultimate Efficiency of Steam Boilers."

T. D. Lynch, C.E., Assistant Naval Inspector, Pittsburg, Pa. Subject: "The Handling and Conveying of Iron and Steel."

John A. McCuolloch, M.E., Pittsburg, Pa. Subject: "Monongahela River Improvements and Notes on Similar Works."

THE COLLEGE OF AGRICULTURE.

Staff of Instruction.

The Faculty.

JEROME HALL RAYMOND, Ph.D., President of the University, and Professor of Economics and Sociology.

THOMAS CLARK ATKESON, Ph.D., Dean, and Professor of Agriculture.

LEE CLEVELAND CORBETT, M.S., Professor of Horticulture and Forestry.

ANDREW DELMAR HOPKINS, Ph.D., Professor of Economic Entomology.

BERT HOLMES HITE, M.S., Professor of Agricultural Chemistry.

FREDERICK PHILIP RUHL, D.V.S., Professor of Veterinary Science.

WILLIAM EARL RUMSEY, B.S.Agr., Instructor in Botany.

WILLIAM FRAZIER NARET, B.Agr., Fellow in Agriculture.

Other Instructors Giving Courses in this College.

ROBERT ALLEN ARMSTRONG, A.M., Professor of English Literature.

POWELL BENTON REYNOLDS, D.D., Professor of Philosophy.

ALEXANDER REID WHITEHILL, Ph.D., Professor of Chemistry.

JAMES WILLIAM HARTIGAN, A.M., M.D., Professor of Biology.

SAMUEL B. BROWN, A.M., Professor of Geology and Mineralogy.

JAMES SCOTT STEWART, M.S., Professor of Mathematics.

WILLIAM SLEEPER ALDRICH, M.E., Professor of Mechanical Engineering and Mechanic Arts.

THOMAS EDWARD HODGES, A.M., Professor of Physics.

FREDERIC WILLIAM SANDERS, Ph.D., Professor of European History.

RICHARD ELLSWORTH FAST, LL.B., A.M., Professor of American History and Political Science.

FREDERICK WILSON TRUSCOTT, Ph.D., Professor of Germanic Languages and Literatures.

CHARLES HENRY PATTERSON, A.M., Professor of Rhetoric and Elocution.

ROBERT LOVE MORRIS, B.S.C.E., Instructor in Civil and Mining Engineering.

DENNIS MARTIN WILLIS, Instructor in Bookkeeping.

THE COLLEGE OF AGRICULTURE.

The well-equipped Mechanical department, the resources of the Engineering and Scientific departments of the University, together with their laboratories and scientific apparatus, and the libraries of the Agricultural Experiment Station and University, are at the command of the students in the College of Agriculture. The farm of the Agricultural Experiment Station, together with its gardens, experimental plats, laboratories and collections, will be available for students desiring to acquaint themselves with the practical and scientific methods of conducting agricultural pursuits and to investigate scientific questions relating to the progress and development of agriculture.

The farm is equipped with barns, stables and other buildings, and presents a variety of soils and conditions existing upon many of the farms of the state. Upon this farm are kept different varieties of farm animals and the most approved agricultural implements; and facilities are provided for studying the most economic methods of handling live stock and their products, including poultry.

The students who complete the course in this College are expected to be thoroughly trained and enthusiastic followers of their chosen profession, as well as cultivated citizens, with broad general interests.

Expenses.

To West Virginia students, tuition is free.

To students from other states, tuition is $12.50 per quarter (twelve weeks).

The matriculation fee, payable by all students upon entering the University, is $5. Unless a student remains out of the University more than three years the matriculation fee is paid but once by each student.

The contingent fee, payable by all students, is $2 per quarter.

Board and room may be obtained in Morgantown at from $3 to $4 per week.

Courses of Study.

The College of Agriculture offers the following courses:

1. The regular four-year course, leading to the degree of Bachelor of Science in Agriculture (B.S.Agr.).

2. The two-year course, leading to the degree of Bachelor of Agriculture (B.Agr.).

3. The one-year course, which does not lead to any degree, but for the completion of which a certificate is given.

4. A special twelve-weeks course, so arranged that students may complete the one-year course in three winter quarters.

5. A special twelve-weeks course in Veterinary Science, Stock Breeding and Feeding will be given during the winter quarter.

6. The Agricultural Home Reading Course, for those who cannot attend the University in person, but desire University guidance in carrying on a course of Agricultural study at home.

Requirements for Admission.

The Four-Year Course.

The requirements for admission to the Freshman class of the four-year course, leading to the degree of Bachelor of Science in Agriculture, are as follows:

1. History:

(a) General History,—Myers, or an equivalent;
(b) United States History,—Fiske, or an equivalent.

2. English:

(a) Spelling, punctuation, capitalization and paragraphing;
(b) The leading facts of English grammar;
(c) Composition,—ability to write good English;
(d) Literature:

PART I. READING.—A certain number of books are set for reading. The candidate will be required to present evidence of a general knowledge of the subject-matter, and to answer simple questions on the lives of the authors. The form of examination will usually be the writing of a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number—perhaps ten or fifteen—set before him in the examination paper. The treatment of these topics is designed to test the candidate's power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. In place of a part or the whole of this test, the candidate may present an exercise book properly certified by his instructor, containing compositions or other written work done in connection with the reading of the books.

The following are the books for the next three years:

1899: Dryden's "Palamon and Arcite;" Pope's "Iliad," Books I, VI, XXII, and XXIV; The "Sir Roger de Coverley Papers" in the *Spectator;* Goldsmith's "The Vicar of Wakefield;" Coleridge's "Ancient Mariner;" De Quincey's "The Flight of a Tartar Tribe;" Cooper's "Last of the Mohicans;" Lowell's Vision of Sir Launfal;" Hawthorne's "The House of the Seven Gables."

1900: Dryden's "Palamon and Arcite;" Pope's "Iliad," Books I, VI, XXI, and XXII; Goldsmith's "The Vicar of Wakefield;" Scott's "Ivanhoe;" De Quincey's "The Flight of a Tartar Tribe;" Cooper's "Last of the Mohicans;" Tennyson's "The Princess;" Lowell's "Vision of Sir Launfal;" The "Sir Roger de Coverley Papers" in the *Spectator.*

1901: Scott's "Ivanhoe;" Pope's "Iliad," Books I, VI, XXII, and XXIV; The "Sir Roger de Coverley Papers" in the *Spectator;* Goldsmith's "The Vicar of Wa efield;" Cooper's "The Last of the Mohicans;" Tennyson's "The Princess;" Coleridge's "Ancient Mariner;" Eliot's "Silas Marner;" Shakespeare's "The Merchant of Venice."

PART II. STUDY AND PRACTICE.—This part of the examination presupposes the thorough study of each of the works named below. The examination will be upon subject-matter, form and structure.

The books for this part of the examination for the next three years will be:

1899: Shakespeare's "Macbeth;" Milton's "Paradise Lost," Books I and II; Burke's "Speech on Conciliation with America;" Carlyle's "Essay on Burns."

1900: Shakespeare's "Macbeth;" Milton's "Paradise Lost," Books I and II; Burke's "Speech on Conciliation with America;" Macaulay's "Essays on Milton and Addison."

1901: Shakespeare's "Macbeth;" Burke's "Speech on Conciliation with America;" Macaulay's "Essays on Milton and Addison;" Milton's Minor Poems: "Lycidas," "Comus," "L'Allegro," and "Il Penseroso."

3. Mathematics:

(a) Arithmetic completed;
(b) Algebra to Logarithms,—Wells' University Algebra, or an equivalent;
(c) Plane Geometry,—Wells, or an equivalent.

After July 1, 1900, Solid Geometry will also be required.

4. Elementary Science:

(a) Physical Geography;
(b) Human Anatomy and Physiology;
(c) Physics;
(d) Botany.

The course in each to be not less than one term of twelve weeks, five recitations a week.

5. Latin:

(a) Grammar and Elementary Book,—Chase and Stuart, or an equivalent;
(b) Cæsar,—four books;
(c) Cicero,—five orations;
(d) Virgil,—six books of the Æneid.

Three years of daily recitations should be given to this preparatory work in Latin.

6. French or German:

Two years of daily recitations in one or both of these languages.

The Two-Year Course.

The requirements for admission to this course are as follows: **(1) History, (2) English, (3) Mathematics, (4) Elementary Science,** as required for admission to the four-year course.

The One-Year Course.

No entrance requirements are made for this course.

The Twelve-Week Course.

No entrance requirements are made for these courses.

Conditional Admission.

Students who have not had opportunity to make the preparation required for admission may enter the Preparatory School at the University and complete their preparation. If a student lacks only a part of the necessary preparation, he may be admitted conditionally, and complete his preparation while carrying on some of the studies of the College course.

Requirements for Degrees.

Bachelor of Science in Agriculture.

For this degree at least forty-two courses are required. A *course* means a course of five class exercises a week for one quarter (twelve weeks), or their equivalent in laboratory or other practical work. For the degree of Bachelor of Science in Agriculture the forty-two courses required are as follows:

2 courses in Mathematics.
3 courses in one Modern Language.
2 courses in Rhetoric.
1 course in English Literature.
2 courses in History.
1 course in Psychology.
1 course in Economics.
1 course in Sociology.
2 courses in Chemistry.
1 course in Physics.
1 course in Biology.
1 course in Geology.

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18 Bachelor of Science in Agriculture. [*Continued from page 128.*]
1 course in Agriculture.
1 course in Entomology.
1 course in Economic Botany.
3 courses in Horticulture.
2 courses in Live Stock.
1 course in Surveying.
1 course in Agricultural Chemistry.
1 course in Rural Economics.
2 courses in Agricultural Science.
1 course in Economic Geology.
1 course in History of Agriculture.
2 courses in Veterinary Science.
1 course Thesis.

36 courses required.
6 courses elective, which may be taken in Military Work, Mechanic Arts, Gymnastics, Drawing, and Synoptic or Chapel Lectures.

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Schedule of Recitations.

Four-Year Course.

Freshman Year.

HOUR.	FALL.	WINTER.	SPRING.
8.00	Fruit Culture	Vegetable Gardening	
9.00	Chemistry	Chemistry	
10.00	Agriculture	Mathematics	Mathematics
11.00		Stock breeding	Economic Botany

Sophomore Year.

8.00	History of Agriculture	Zoology	
9.00		Economics	Agr. Science
10.00	General Biology	Rural Economics	Agr. Chemistry
11.00	Rhetoric	Rhetoric	English Literature

Junior Year.

8.00	Sociology		Entomology
9.00	German	German	German
10.00	Physics	Vet. Science	Stock Feeding
11.00	Plant Breeding	Surveying	

Senior Year.

8.00	Psychology		
9.00	Agr. Science	Vet. Science	American History
10.00			Thesis
11.00	General Geology	Modern History	Economic Geology

Bachelor of Agriculture.

For this degree at least the following twenty-four courses are required:

The Two-Year Course.

1 course in Rhetoric.
1 course in English Literature.
2 courses in Chemistry.
1 course in Physics.
1 course in Biology.
1 course in Geology.
1 course in Agriculture.
1 course in Economic Entomology.
1 course in Economic Botany.
3 courses in Horticulture.
2 courses in Live Stock.
1 course in Surveying.
1 course in Agricultural Chemistry.
1 course in Rural Economics.
1 course in Agricultural Science.
1 course in Bookkeeping.
1 course in History of Agriculture.
2 courses in Veterinary Science.
1 course Thesis.

24 courses.

Schedule of Recitations.

Two-Year Course.

First Year.

HOUR.	FALL.	WINTER.	SPRING.
8.00	Fruit Culture	Vegetable Gardening	Bookkeeping
9.00	Chemistry	Chemistry	General Geology
10.00	Agriculture	Rural Economics	Agr. Chemistry
11.00	Rhetoric	Surveying	Economic Botany

Second Year.

8.00	History of Agriculture	Zoology	Entomology
9.00	English Literature	Veterinary Science	Agr. Science
10.00	Physics	Veterinary Science	Thesis
11.00	Plant Breeding	Stock Breeding	Stock Feeding

The One-Year Course.

This course consists of twelve courses selected from those included in the two and four-year courses. No entrance requirements are made for this course. A certificate indicating the work done will be granted on the completion of this course. It is confidently believed that many young men who are farmers, or expect to become farmers, will find it greatly to their advantage to devote one year to this course, if for any reason they cannot give the time necessary to complete a longer course.

Schedule of Recitations.

One-Year Course.

HOUR.	FALL.	WINTER.	SPRING.
8.00	Fruit Culture	Vegetable Gardening	Entomology
9.00	Chemistry	Chemistry	Agr. Science
10.00	Agriculture	Rural Economics	Agr. Chemistry
11.00	Plant Breeding	Stock Breeding	Stock Feeding

One Quarter Courses.

Two special twelve-weeks' courses are offered during the winter quarter.

Course One is so arranged that the One-Year Course in Agriculture may be completed in three winter quarters. Its object is to provide a winter course for young farmers who may be able to spend only the winter at the University.

Course Two is a winter course in Veterinary Science, Stock Breeding, Stock Feeding, and a general study of animal industry. The purpose is not to make veterinary surgeons, but to enable students to properly diagnose the principal diseases among farm animals, to treat common accidents and to use preventive measures.

DEPARTMENTS OF INSTRUCTION.

Only the technical courses are described here. For the general culture courses to be taken by students in the College of Agriculture, see the courses announced in the College of Arts and Sciences.

Agriculture.

PROFESSOR ATKESON AND MR. NARET.

1. Agriculture. First principles of agriculture; origin, cultivation, drainage, and classification of soils; indications of fertility; improvement of soils and their physical properties; principles of

manures and manuring; production and handling of farm crops; preparation of land for the seed and subsequent care of the plant; pastures, meadows and forage, and general study of farm machinery and buildings. Bailey's "Principles of Agriculture."

Fall and Winter, 10.00; A.

2. Stock Breeding. What is meant by breeding; how to attain the ideal; the principles of heredity; atavism, variation, selection, correlation, in-and-in breeding, controlling sex, parental, mental, environment, and climatic influences; history, characteristics, purposes and uses of the different breeds of domestic animals. Miles' "Stock Breeding;" Shaw's "Study of Breeds." Winter, 11.00; A.

3. Stock Feeding. Laws of animal nutrition; feeding stuffs; feeding farm animals; feeding for milk, muscle and fat; sources of food; how the animal uses food; preparation of food; study of rations and feeding standards; care and management of live stock, including poultry. Henry's "Feeds and Feeding." Winter, 9.00; Spring, 11.00; A.

4. Rural Economics. Lectures and Recitations. Farming as a business; methods of keeping farm accounts; a brief study of the laws that directly concern the farmer; how the farmer is affected by the general industrial and social conditions which determine and modify an intelligent prosecution of his business; the mutual relations of agriculture and other industries; value and prices, with especial reference to land and agricultural products; system of land tenure; general principles of co-operation; co-operative distribution, production, banking, and insurance; farmers' organizations, their objects, aims and purposes; farmers' institutes, and best methods of conducting them; a thorough study and investigation of every question involved in practical and successful agriculture. Haigh's "Manual of Farm Law;" Atkeson's "Bookkeeping for Farmers;" Myrick's "How to Co-operate."

Winter, 10.00; A.

5. History of Agriculture. Lectures and Recitations. A general history of Agriculture, beginning with the most ancient times, tracing the history of Agriculture and agricultural methods through all ages to the present, with a special study of the present practices and methods of competing with foreign countries. Hoskyn's "Inquiry into the History of Agriculture;" De Candolle's "Origin of Cultivated Plants;" Flint's "One Hundred Years of Progress;" Mitchell's "Wet Days at Edgewood." Half course. Fall, 8.00; A.

6. History of Commerce. History of commerce; methods of exchange in ancient times; shipping of the ancients; fairs and markets; results of maritime discoveries; changing of commercial routes; international treaties affecting commerce; scientific and industrial discoveries affecting commerce; trade restriction; consuls; modern commerce; boards of trade; stock and produce exchanges; stock companies; corpo-

rations; modern transportation; freight companies; express companies; telegraph and telephone companies; warehouses, duties, insurance; modern methods of preparing and shipping articles of merchandise; circulation of commodities between cities and countries; jobbing and commission business; trade statistics; dependence of manufacturers upon producers of raw material; nomenclature of commerce. Textbook, Gilbert's "History and Principles of Commerce."

Half course. Fall, 8.00; A.

7. Agricultural Science. Lectures and recitations. General relation of soil and air to plants. The atmosphere as a source of plant food; relations of water to the soil; movements of water in the soil; soils as chemical agents; manures and manuring; chemical fertilizers; potassic manures; magnesium, sodium and lime compounds. Aikman's "Manures and Manuring." Spring, 8.00; A.

8. Advanced Agricultural Science. Farmyard manures; green manuring; humus and vegetable moulds; composts and modes of applying manures; theory of the rotation of crops; irrigation; growth of crops; maintenance of meadows and pasture lands, and a general discussion of the methods of extensive and intensive farming. Storer's "Agriculture." Fall, 9.00; A.

9. Farm Equipment. Selecting, planting, and equipping farms; planning and erecting farm buildings and fences; building roads; farm vehicles and machinery; farm implements and the application of different kinds of power for farm purposes. Half course. Fall, 11.00; A.

Horticulture and Forestry.

PROFESSOR CORBETT.

The instruction offered in the department of Horticulture is made thoroughly practical, and especial stress is laid upon those branches which are particularly suited to the conditions of West Virginia.

1. Fruit Culture. This course is intended to familiarize the student with all classes of fruits of the north temperate zone; their propagation, culture, and pruning, treatment to prevent injuries from insects and diseases. The classroom exercises are enforced by actual practice in budding, pruning, and planting trees, together with practical work in the preparation and application of insecticides and fungicides. A knowledge of the elements of Botany is almost a necessity, in order that the student make progress in this course. The instruction is mainly given through lectures, from which the students are required to take notes. The notes so taken are considered a part of the regular work of the course, and the fullness, neatness and accuracy with which this work is done is considered in making up the final grade of the student. The

lectures are, so far as the equipment of the institution will permit, supplemented by practical exercises. Fall, 8.00; A.

2. Vegetable Gardening. Greenhouse construction and management. Lectures and recitations on the origin, propagation, cultivation, insect enemies, and fungus diseases of garden vegetables, together with practice in the planting and cultivation of these vegetables in the garden; the laying out of home grounds, and the construction and management of greenhouses. The requirements for this course are the same as for Course 1, and the class exercises are conducted in like manner.

Winter, 8.00; A.

3. Plant Breeding. This course is designed to meet the requirements of those who wish to prepare themselves to become florists, nurserymen or practical fruit growers, as well as those who expect to teach. A study of the methods of plant breeding, evolution and heredity, as applied to cultivated plants, are its chief features. Prerequisites, Courses 1 and 2. Fall, 11.00; A.

4. Forestry. This course is devoted to the consideration of the forestry problems presented to the United States.

The importance of groves and shelter belts for the protection of growing crops, the necessity for the maintenance of a forest cover to insure adequate and lasting water supplies, and for the maintenance of equable climate, as well as the preservation of a future timber supply, are questions receiving consideration in this course. This work is elective and is open to any student in the University who has had elementary training in Botany. Lectures and recitations. Hours to be arranged with the instructor.

Economic Entomology.

PROFESSOR HOPKINS AND MR. RUMSEY.

1. Economic Entomology. This course will be conducted with a view to stimulating an interest in the study of insect life, and giving instruction along lines especially suited to the needs of the agricultural student. Text-books and laboratory demonstrations will be used to give such elementary instruction in economic and systematic Entomology as will give the student a general knowledge of the science, and instruction in the application of this knowledge will be given by means of practical field and research work. Spring, 8.00; A.

Economic Botany.

MR. RUMSEY.

1. Economic Botany. (a) Phanerogams. Practical and comparative studies of seeds, seedlings and the organs of mature plants.

The growth, dissemination, duration and eradication of weeds. Herbarium work. (b) Cryptogams. An outline study of ferns, mosses and fungi.

This course is designed especially for agricultural students, but will also be of value to all those interested in the subject of Botany, for the practical work of the laboratory will bring the student in closer touch with nature, and teach him to see and more fully understand the valuable and interesting phases of the plant world. Prerequisites, Elementary Botany as given in the Preparatory Department of the University, or its equivalent. Spring, 11.00; A.

Agricultural Chemistry.

PROFESSOR HITE.

1. Agricultural Chemistry. A course of lectures on the application of chemical principles to farm economy. The relation of Chemistry to Agriculture; relation of the plant to soil and air; sources of plant food; osmosis and osmotic pressure; mechanism of plant nutrition; germination and elaboration of plant tissue. Soils: their origin, formation, composition, classification, deterioration, and improvement. Nitrification of soils. Prerequisite, general elementary Chemistry. Reference book, Johnson's "Agricultural Chemistry." Spring, 10.00; A.

2. Agricultural Chemical Analysis. This course includes the analysis of farm products, soils, ashes, fertilizers, mineral and drinking waters, etc. Prerequisites, Qualitative and Quantitative Analysis and Agricultural Chemistry 1. Laboratory guide, Wiley's "Principles and Practice of Agricultural Chemical Analysis."

Summer, Fall, Winter, Spring, 2.00; A.

Veterinary Science.

PROFESSOR RUHL.

1. Descriptive Anatomy and Operative Surgery. This course will consist of lectures and actual demonstration upon the subject. Chaureau's "Anatomy." Williams' "Operative Surgery."

Half course, first term, Winter, 9.00; A.

2. Cattle Pathology and Obstetrics. These branches will be taught by lectures, illustrations, and practical examination. Steel's "Cattle Practice." Half course, second term, Winter, 9.00; A.

3. Theory and Practice of Equine Medicine. This course will be given by lectures upon the cause, diagnosis, treatment, prognosis, and termination of the various diseases. Williams' "Principles and Practice of Veterinary Medicine."

Half course, first term, Winter, 10.00; A.

4. Materia Medica and Therapeutics. This subject will cover a course of lectures upon the most important drugs used in Veterinary Medicine. These will be exhibited, so that the student may familiarize himself with their appearance, different preparations, also action and uses. Dun's "Veterinary Medicine."

Half course, second term, Winter, 10.00; A.

5. Clinical Instruction. This will be given twice a week during the quarter, and will include Physical Diagnosis, Examination for Lameness, different methods of securing animal for operations, also the use of the different instruments and appliances.

Winter, 2 P. M., Tuesday, Friday; A.

Mechanic Arts.

PROFESSOR ALDRICH, MR. JONES, AND MR. WEST.

All agricultural students are required to take the following course in Mechanic Arts:

Fall Quarter: Mechanical Engineering 1,—carpentry, joinery, bench work in wood. Friday, 1.30.

Winter Quarter: Mechanical Engineering 2,—woodwork and wood-turning. Friday, 1.30.

Spring Quarter: Mechanical Engineering 3,—iron forging. Friday, 1.30.

Theses.

A thesis upon a subject in Agriculture or some closely allied branch of study will be required of each student who graduates. The subject must be selected in conference with the Dean of the College of Agriculture, and will involve original investigation of a character intended to bring out the full abilities of the graduate.

Agricultural Society.

An Agricultural Society has been organized, which meets weekly, for the discussion of current and scientific topics in Agriculture and related subjects. All agricultural students are expected to join this society and perform such work as its rules require.

Library.

The Agricultural Experiment Station Library, composed of thousands of books on agricultural subjects, and much of the current agricultural literature, and the regular University Library, are placed at the service of the students in the College of Agriculture.

Agricultural Home Reading Course.

Since it is impossible for a great majority of the farmers of the state to attend the College of Agriculture, the Faculty has determined to do all it can to take the College to the farmer, by offering a systematic course of Home Reading in Agriculture. It is not expected that this course will in any sense take the place of a regular course at the College, but it is expected that every one who faithfully pursues this carefully prepared course upon technical agriculture, horticulture, stock-growing, rural economy, and kindred subjects, will be vastly benefited thereby.

This course is open to all, there being no requirements as to age, sex, or previous preparation, and no examination is required for admission.

No fee is charged for registering students in this course.

The course may be begun at any time, and carried on as rapidly or as slowly as may be desirable. The subjects may be taken up in any order desired, and any part of the course taken without the rest. The whole course is divided into four divisions, but a regular course will consist of any two of the four divisions, or the student may elect any ten of the twenty subjects given.

Certificates.

Any student who has completed a subject will, upon notifying the Dean, receive an examination paper on that subject, to which written answers are to be returned, accompanied with a statement upon honor that the answers are the unaided work of the person sending them. These answers will be graded, and any one receiving a grade of 75 per cent. or more in the studies of any two divisions will receive a suitable certificate signed by the President of the Board of Regents and the Dean of the College. For this certificate a charge of one dollar will be made, which is only sufficient to cover the actual cost of material and engraving.

Local Circles.

Individuals may take the course by themselves, wholly independent of anyone else. Much mutual benefit will be derived, however, by the formation of local reading circles of from five to twenty members, which may meet at regular times for study and discussion, and it is urged that this be done whenever possible.

It is suggested, also, that farmers' organizations—granges, farmers' clubs, etc.—may add to the interest and profit of their meetings by taking up the course or such portions of it as may be of special interest to them.

Only one set of books need be purchased for each reading circle, grange or club, although it is believed that a greater interest in the work will be secured by having at least one book for each member.

One book at a time may be purchased by the individual student or the reading circle, if circumstances make this desirable.

The text-books selected for this course are standard works, fully illustrated and neatly bound, revised and brought up to date. They contain in all cases a plain, practical presentation of the scientific principles underlying the best practices in the different departments of farming, stock-raising and gardening. The scientific terms used are fully explained.

All students are expected to ask for assistance whenever difficult problems are encountered or any passages are found in the books that are not perfectly clear.

Illustrative Material.

Special attention is called to the fact that the course of study here laid down is a study of the materials and processes going on upon the farm, and that the text-book should be used as an aid to direct personal observation and study of the things themselves and not as a substitute for it. In this respect an agricultural course has advantages over many others, and it is hoped that no one will forego these advantages and confine his work to the text-book alone.

Books at Reduced Rates.

Division I.—Crop Production.

	Postpaid.
Plant Life on the Farm—Masters	$ .75
Soils and Crops—Morrow & Hunt	.75
Manures and Manuring—Aikman	2.25
The Soil—King	.57
Tile Drainage—Chamberlain	.27

Division II.—Live Stock Production.

Manual of Cattle Feeding—Armsby	1.29
Stock Breeding—Miles	1.13
Swine Husbandry—Coburn	1.17
American Dairying—Gurler	.75
Poultry Culture—Felch	1.13

Division III.—Horticulture and Floriculture.

The Propagation of Plants—Fuller	.99
The Fruit Garden—Barry	1.32
Insects and Insecticides—Weed	1.00
Practical Floriculture—Henderson	.99
Spraying—Lodeman	.75

Division IV.—Rural Economy.

	Postpaid.
Bookkeeping for Farmers—Atkeson	$ .15
Farm Law—Bennett	.50
How to Co-operate—Myrick	.50
The House Comfortable—Ormsbee	.75
Chemistry of Cookery—Williams	1.13

Directions for Ordering Books.

Arrangements have been made with The Orange Judd Co., 52-54 Lafayette Place, New York, by which the books required will be furnished to students of this course only at the prices named, which are a great reduction from regular retail rates. These prices include postage and are payable strictly in advance.

Orders for books should be addressed directly to The Orange Judd Co., and should in all cases be accompanied by a postal or express money order or draft, payable to the above firm, for the full amount of the order.

All communications in regard to the Agricultural Home Reading Course should be addressed to the Dean of the College of Agriculture.

THE WEST VIRGINIA AGRICULTURAL EXPERIMENT STATION.

Board of Control.

THE REGENTS OF THE WEST VIRGINIA UNIVERSITY.

STATION COMMITTEE.

GEORGE C. STURGISS. JAMES L. HAMILL.

JAMES F. BROWN.

STATION STAFF.

J. H. STEWART, A.M., Director and Agriculturist.

A. D. HOPKINS, Ph.D., Vice-Director and Entomologist.

B. H. HITE, M.S., Chemist.

L. C. CORBETT, M.S., Horticulturist.

W. E. RUMSEY, B.S.Agr., Assistant Entomologist.

T. F. WATSON, B.S., Assistant Chemist.

HORACE ATWOOD, M.S.Agr., Assistant Agriculturist.

C. D. HOWARD, B.S., Assistant Chemist.

E. C. FRAME, Clerk and Stenographer.

M. A. STEWART, Librarian.

The Experiment Station is a distinct and separate department of the University, and was established by the Board of Regents in 1887, by authority of an Act of Congress, known as the Hatch Act, which was passed on the 2d day of March of that year. The funds for carrying on the operations of the Station, with the exception of its meagre earnings, are derived wholly from the general government. The aforesaid Act in section 2 fully states the object and purposes of the Experiment Station as follows:

"That it shall be the object and duty of said experiment stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under varying series of crops; the

capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective states and territories.

Bulletins and annual reports are published frequently at the Station for gratuitous distribution, as far as the capacity of the Experiment Station will permit, and will be mailed regularly, free, to any citizen of the state applying for the same.

The Station invites correspondence, suggestions, and advice from farmers and others interested in this work, and all such, with reference to bulletins, experiments, or any matter relating to agriculture, will be welcomed and will receive careful and prompt attention. Correspondence may be addressed to the Director of the Station, or to individual members of the Station Staff.

THE COLLEGE OF LAW.

STAFF OF INSTRUCTION.

JEROME HALL RAYMOND, Ph.D., President.

OKEY JOHNSON, A.M., LL.B., Dean, and Professor of Constitutional and International Law, and the Law of Corporations.

ST. GEORGE TUCKER BROOKE, LL.D., Professor of Common and Statute Law.

WILLIAM P. WILLEY, A.M., Professor of Equity Jurisprudence and Commercial Law.

EDGAR STEWART, LL.B., Assistant in Law.

Any person is at liberty to enroll in this College and be admitted to attendance upon the lectures, whether he or she is a candidate for a degree or not. If a student is a candidate for a degree, certain entrance requirements are essential, as hereinafter set forth. If he intends to complete less than the whole course, or desires simply to prepare for examination for admission to the bar, no entrance requirements are made, but he will be awarded a certificate by the Law Faculty for the work done, and may suspend his studies at the end of any quarter without losing the benefit of his work.

Courses Offered in the College of Law.

The College of Law offers two courses:

1. The four-year course leading to the degree of Bachelor of Laws. The first two of the four years of this course are devoted to such general culture studies as are most essential to a lawyer; the last two years of the course are exclusively devoted to professional law work.

2. The two-year course, which does not lead to any degree. A student who completes this course will receive a diploma, which, upon presentation, will admit him to practice law in any court in West Virginia. The subjects taught in this course are the same as those taught in the Junior and Senior years in the four-year course.

Requirements for Admission.

The Two-Year Course.

No standard of scholarship is prescribed for entrance to this course, but the fitness of an applicant to receive a diploma in this course will be determined by the character of his examinations in the required branches of the law.

The Four-Year Course.

The requirements for admission are as follows:

1. History:

(a) General History,—Myers, or an equivalent;
(b) United States History,—Fiske, or an equivalent.

2. English:

(a) Spelling, punctuation, capitalization, and paragraphing;
(b) The leading facts of English grammar;
(c) Composition,—ability to write good English;
(d) Literature.

PART I. READING.—A certain number of books are set for reading. The candidate will be required to present evidence of a general knowledge of the subject-matter, and to answer simple questions on the lives of the authors. The form of examination will usually be the writing of a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number—perhaps ten or fifteen—set before him in the examination paper. The treatment of these topics is designed to test the candidate's power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. In place of a part or the whole of this test, the candidate may present an exercise book, properly certified by his instructor, containing compositions or other written work done in connection with the reading of the books.

The following are the books for 1899:

PART I. READING.—Dryden's "Palamon and Arcite," Pope's "Iliad," Books I, VI, XXII, and XXIV; the "Sir Roger de Coverley Papers" in the *Spectator;* Goldsmith's "The Vicar of Wakefield;" Coleridge's "The Ancient Mariner;" De Quincey's "The Flight of a Tartar Tribe;" Cooper's "The Last of the Mohicans;" Lowell's "The Vision of Sir Launfal;" Hawthorne's "The House of Seven Gables."

PART II. STUDY AND PRACTICE.—Shakespeare's "Macbeth;" Milton's "Paradise Lost," Books I and II; Burke's "Speech on Conciliation with America," and Carlyle's "Essay on Burns."

3. Mathematics:

(a) Arithmetic, completed.
(b) Algebra to Logarithms,—Wells' University Algebra, or an equivalent;
(c) Plane Geometry,—Wells, or an equivalent.

After July 1, 1900, Solid Geometry will also be required.

4. Elementary Science:

(a) Physical Geography;
(b) Human Anatomy and Physiology;
(c) Physics;
(d) Botany.

The course in each to be not less than one term of twelve weeks, five recitations a week.

5. Latin:

(a) Grammar and Elementary Book,—Chase and Stuart, or an equivalent;
(b) Cæsar,—four books.
(c) Cicero,—five orations.
(d) Virgil,—six books.

Three years of daily recitations should be given to this preparatory work in Latin.

6. French or German or Greek:

Two years of daily recitations in one or two of these languages.

Conditional Admission.

Students who have not had opportunity to make the preparation required for admission may enter the Preparatory School at the University and complete their preparation. If a student lacks only a part of the necessary preparation, he may be admitted conditionally, and complete his preparation while carrying on some of the studies of the Freshman year.

Advanced Standing.

A candidate for advanced standing may receive credit for so many of the courses required in the Junior year as he may be able to pass satisfactorily upon examination before the Faculty of the Law College; but no credit for advanced standing will be given for any Senior course. No diploma will be granted to any student, or degree conferred upon him, unless he has been in actual attendance upon the lectures during at least three quarters. Examinations for advanced standing will be held by the Faculty of the Law College on the third, fourth, and fifth days of each Fall Quarter.

Degrees.

Bachelor of Arts in Law.

The degree of Bachelor of Arts in Law, which has been heretofore awarded, will not be offered or awarded after July 1, 1901. Students who are now pursuing this course, and who may be able to complete it before the date named, will be awarded the degree, or they may choose between that degree and the degree of Bachelor of Laws.

Bachelor of Laws.

Until July 1, 1899, the degree of Bachelor of Laws will be conferred on students who complete the two-year professional Law Course, in accordance with the regulations which have hitherto been in operation.

After July 1, 1899, the degree of Bachelor of Laws will be conferred only upon students who complete the regular four-year degree course as outlined below. The degree of Bachelor of Laws in this University admits the holder to practice law in any of the courts of this state without further examination.

Master of Laws.

The degree of Master of Laws will be conferred on any graduate of this College of Law who has previously received the degree of Bachelor of Laws or Bachelor of Arts in Law, who pursues the study of law in this College for one year after graduation, and who completes to the satisfaction of the Faculty of the College of Law such a course of study as may be required, and who at the end of the year presents to the Faculty a satisfactory thesis on some legal subject to be selected by the student with the approval of the Law Faculty; and the privilege thus extended to graduates of this College of Law is also extended to graduates of other law schools of equal grade.

This course will consist mainly of original investigation, under the direction of the Faculty of the College of Law. Most of the work will be done in the Law Library, the "lawyer's laboratory." Legal questions will be given for solution, and cases to be analyzed. Cases without syllabi will be given to the student, who will be required to make a complete report of each case,—the questions involved, how they arose, the pleadings, how the case was decided in the inferior court, how it was decided in the Appellate Court on appeal or writ of error, and the grounds on which the decision was made. The syllabus of the case will then be required, careful distinction being made between the decision and the mere *obiter dictum* of the judge who announced the decision.

Bachelor of Laws.

The four-year course leading to the degree of Bachelor of Laws consists of the following:

1 course in Mathematics.
3 courses in one foreign language.
2 courses in Rhetoric.
1 course in Development of the English Language.
2 courses in English Literature.
3 courses in History.
1 course in Political Science, not included in the professional work.
1 course in Biology.
1 laboratory course in Science.
1 course in Psychology.
1 course in Economics.
1 course in Sociology.

18 courses in general culture. [*Forward to page 146.*]

18 courses in general culture. [*Continued from page 145.*]
18½ courses in Law, and a Thesis.

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36½ courses required.
5½ courses elective, which may be taken in military work, gymnastics, synoptic lectures and court practice.

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A course means a course of five class exercises a week for one quarter (twelve weeks), or their equivalent. Graduates of West Virginia University or other colleges or universities of recognized standing, and students who have completed two full years of a college course at a reputable college, are not required to take the eighteen courses in general culture studies enumerated above, but are admitted immediately to the Junior Class, and may complete the course and receive the degree in two years.

Courses of Instruction.

There is no prescribed order in which a student in the four-year degree course must take the courses above indicated, which are required in the Freshman and Sophomore years. Each student will arrange with his class officer at the beginning of each quarter as to the courses he will take during that quarter. The class officer will use his judgment in the assignment of studies. It is his duty to see that each student under his charge takes his work in the order which will be most beneficial.

The studies of the Junior and Senior years constitute the professional course in Law. These studies are all required, and must be taken in a specified order unless special permission is obtained to vary that order. Students who are taking the two-year certificate course have the same studies as Juniors and Seniors in the four-year degree course.

The professional course offered by the College of Law is the full, complete, and comprehensive course of the modern law school, which will prepare students for the practice of Law in any part of the United States.

The aim of the College of Law is to make not merely theoretical, but practical lawyers, who will go from the lecture-room to the bar thoroughly equipped for the active duties of the profession. It aims, moreover, while making thorough lawyers, to give the student a correct conception of the scope and character of the profession, and to start him in life with high ideals of professional ethics and dignity.

The methods of instruction consist of lectures, references to illustrative cases, examinations from approved text-books, quizzes on lectures, the drawing of the various legal papers requisite in the ordinary practice of the law, and practice in the moot courts. There are oral examinations daily on the subjects of the lectures and the text-books used,

and comprehensive written examinations on each topic or branch of law as completed.

The professional part of the regular Law Course is designed to occupy the student two full years, and is divided between the College quarters in such a manner that students may with advantage enter at the beginning of any quarter and complete and obtain credit for the branches taught during that quarter. The following schedule shows the division of the quarters and subjects studied during the Junior and Senior years:

Professional Courses in Law.

Junior Year.

Fall Quarter.

Blackstone. Professor Brooke. Full course. 8.00.
Contracts. Professor Willey. Half course. First six weeks, 9.00.
Insurance. Professor Willey. Half course. Last six weeks, 9.00.
Agency. Professor Johnson. Half course. Last six weeks, 10.00.
Criminal Law. Professor Johnson. Half course. First six weeks, 11.00.
Parliamentary Law. Professor Johnson. Half course. Last six weeks, 11.00.

Winter Quarter.

Blackstone. Professor Brooke. Full course. 8.00.
Negotiable Paper. Professor Willey. One-third course. First four weeks, 9.00.
Suretyship and Guaranty. Professor Willey. One-third course. Second four weeks, 9.00.
Bailments. Professor Willey. One-third course. Last four weeks, 9.00.
Criminal Procedure. Professor Johnson. Full course. 11.00.

Spring Quarter.

Blackstone. Professor Brooke. Full course. 8.00.
International Law. Professor Johnson. Full course. 9.00.
***Engineering Jurisprudence.** Professor Johnson. Half course. First six weeks, 10.00.
Civil and Criminal Evidence. Professor Willey. Full course, 11.00.

*Elective. This course is not required of candidates for a law degree, and is inserted here only to show the time at which it is given.

Senior Year.

FALL QUARTER.

Corporations. Professor Johnson. Full course. 9.00.
Common Law Pleading and Practice. Professor Brooke. Full course. 10.00.
Equity and Equity Pleading. Professor Willey. Full course. 11.00.

WINTER QUARTER.

Constitutional Law. Professor Johnson. Full course. 9.00.
Real Property. Professor Brooke. Full course. 10.00.
Equity and Equity Pleading. Professor Willey. Full course. 11.00.
Court Practice. Professors Johnson, Brooke, Willey. Half course.

SPRING QUARTER.

Sales. Professor Willey. Half course. First six weeks, 9.00.
Partnership. Professor Willey. Half course. Last six weeks, 9.00.
Torts. Professor Brooke. Full course. 10.00.
Damages. Professor Johnson. Half course. First six weeks, 11.00.
The Young Lawyer in Practice. Professor Johnson. Half course. Last six weeks, 11.00.
Court Practice. Professors Johnson, Brooke, Willey. Half course.
Thesis.

SUMMER QUARTER.

In the Summer Quarter, 1899, the following courses will be given:

Corporations. Professor Johnson. Full course. 11.00; 14 U.
Constitutional Law. Professor Johnson. Full course. 10.00; 14 U.
Blackstone. Mr. Stewart. Two courses. 8.00 A. M. and 5.00 P. M.; 11 U.
Contracts. Professor Willey. Half course. Mondays, Wednesdays, Fridays, 9.00; 15 U.

Text-Books.

The text-books used in the course are carefully selected and are such as will be useful to the student throughout his professional career. They are all kept at the University and sold to the students at a discount from the regular prices. They are as follows:

Blackstone's Commentaries.
Clark on Contracts.
Elliott on Insurance.
Clark on Criminal Law.
Clark on Criminal Procedure.

Norton on Negotiable Paper.
Hale on Bailments.
Huffcut on Agency.
Hale on Damages.
Cooley's Principles of the Constitution.
Shipman's Common Law Pleading and Equity Pleading.
Brooke's Notes on Pleading and Practice in West Virginia.
Clark on Corporations.
Fetter's Equity.
Williams' Real Property.
Glenn's International Law.
Pollock on Torts.
Underhill's Evidence.
Tiffany on Sales.
George on Partnership.
Robert's Rules of Order.

Expenses.

To West Virginia students tuition is free.

To students from other states tuition is $8 per quarter (twelve weeks).

The matriculation fee, payable by all students upon entering the University, is $5. Unless a student remains out of the University more than three years, the matriculation fee is paid but once by each student.

The contingent fee, payable by all students, is $2 per quarter.

Board and room may be obtained in Morgantown at from $3 to $4 per week.

The text-books absolutely essential to the student in pursuing the prescribed course of study are not numerous or costly, and are such as will be useful to him throughout his professional career.

Examinations for Admission to the Bar.

It is made the duty of the Law Faculty by the laws of the state to examine all applicants for admission to practice law. These examinations are held at the University on the first Wednesdays in February, May, August, and November.

The only requirement for admission to these examinations is that the applicant shall have studied law for two years either in private or at some law school. The examination covers the branches taught in the Junior and Senior years (the prescribed professional course) in this Law College.

Advantages of a University Law Course.

The increasing favor with which law schools are regarded is due to the higher standard of preparation necessary to enable a lawyer to attain

eminence in the profession, as compared with a past age. The lawyer who now aspires to occupy a high position at the bar must be thoroughly equipped. The competition he must meet demands a broad culture, scholarly discipline and a thorough mastery of the principles of law. Law schools have largely contributed to the elevation of the standard. They are now regarded as essential in the legal profession as the medical college and theological seminary are to the medical and clerical professions.

The advantages of a university law course can scarcely be overestimated to the young man who aspires to become thoroughly fitted for the profession of law.

The almost universal experience is that when a young man sits down in a law office to prepare for the bar he becomes impatient to engage in the active business of his profession with which he is surrounded. He makes haste to finish rather than master the course. The active practitioner under whom he is reading is engrossed with the cares of his business and gives him but little attention. He reads in a superficial manner enough branches to enable him to secure license to practice, believing that he will have time enough when he is already admitted to the bar to finish his studies. But the groundwork of a successful professional career is forever neglected, as a rule, constantly proving the old maxim that "he who is not a good lawyer when he goes to the bar will seldom be a good one afterward."

The University course brings the student in constant association with those who are making mental discipline a business; it surrounds him with influences that are elevating and refining; produces habits of application which he will seldom acquire in any other place, and without which he will never make a lawyer.

The advantages of access to a large and well-selected law and miscellaneous library, and the valuable drill of the Literary Societies and Moot Courts are of no small consideration.

Moot Courts.

However familiar the student may be with the principles and theories of law in all its branches, he will be more or less awkward and confused when he goes to the bar and attempts for the first time to make a practical application of legal remedies, unless he has been previously drilled on this behalf. The Moot Court supplies, as well as anything other than a judicial tribunal can do, the drill and discipline necessary to prepare the student for the trial tables. In these courts he is taught to apply legal remedies according to the common law and chancery systems of practice; to bring suits; draw papers, pleadings, briefs, etc., and take the various steps incident to bringing a cause to trial, and then to try it according to the rules of evidence, including the argument, charge, verdict, motion in arrest of judgment, writ of error, etc. The Moot Court is organized and conducted in strict conformity to the prac-

tice of the regular courts in all its details. The students themselves act respectively as counsel, jurors, witnesses and officers of the court, thus learning by actual doing all the forms of court practice; while a professor sits as judge, with the double aim of illustrating the legal principle involved and explaining the rules of practice. The grammatical accuracy, rhetoric, elocution and courtesy of deportment of students also come under review of the professor, and the young men are thus fitted to appear and conduct themselves at the bar as gentlemen and scholars as well as lawyers. The system of Moot Court is thorough.

Each of the professors holds court once a week, in his room, for the trial of law cases.

There is a Supreme Court of Appeals, composed of all three professors, the Dean sitting as president of the court, to which all appeals from decrees and writs of error to judgments rendered in the three several Circuit Courts may be taken. The system works admirably, and gives the student the practice in all the courts, following his case from the Circuit Court, where it is brought, to the Supreme Court of Appeals, which determines finally all cases. Trials are occasionally held in Commencement Hall, and are open to the public.

Eminent Opinions.

The time has gone by when an eminent lawyer, in full practice, can take a class of students into his office and become their teacher. Once that was practicable, but now it is not. The consequence is that law schools are now a necessity.—The Late Chief Justice Waite.

There is little, if any, dispute now as to the relative merit of education by means of law schools and that to be got by mere practical training or apprenticeship as an attorney's clerk. Without disparagement of mere practical advantages, the verdict of the best informed is in favor of the best schools.—Report of the Committee on Legal Education to the American Bar Association, August 21, 1879, at Saratoga, New York.

Professor Bryce, in "The American Commonwealth," attributes the superior attainments of the members of the legal profession in the United States "to the extraordinary excellence of many of the law schools."

Mr. Herron, of Dublin, in his work on the history of Jurisprudence, declares that in the matter of legal reform, and in that of legal authorship, the United States have surpassed England, and he attributes the fact "to the superior legal education which the American lawyers receive and to the schools of law established throughout the United States."

THE SCHOOL OF MUSIC.

Staff of Instruction.

JEROME HALL RAYMOND, Ph.D., President of the University.

CHARLES ALFRED ELLENBERGER, Director, and Professor of Music.

RUSSELL McMURPHY, Instructor on the Piano.

FRANK WILLIAM KEENE, Instructor on the Violin and other Stringed Instruments.

GRACE MARTIN, B.M., Assistant on the Piano.

————————, Assistant in Voice and on the Piano.

THOMAS GETZANDANER HILL, Assistant on Brass and Wood Wind Instruments.

Origin and Purpose.

The School of Music owes its inception to the need, long felt by the patrons and friends of the University, of a well-equipped department of Music, in connection with the other departments, where young men and women of the state might have the opportunity of securing thorough musical training with other necessary educational advantages, and at reasonable cost. It is also a recognized fact that the æsthetic influence of a good School of Music upon the student body in general is most beneficial.

The instruction in the School of Music is based upon the most approved and practical modern methods in Piano-forte and Organ playing, Voice Culture, Violin, Mandolin, Guitar, Banjo, Cornet, Clarionet, and other Brass and Reed Band and Orchestral Instruments, Harmony, Counterpoint, Theory, Musical History, Composition, Orchestration, Sight Singing, and kindred branches. A distinguishing feature of this department is the cultivation of those allied branches which, in connection with the special courses, go to make the student not merely a trained executant, but a broad and liberal musician in the best sense of the word.

Special Advantages.

Many advantages accrue to the student in a School of Music connected with a University. Opportunities are afforded of studying in the various other departments, thus securing to the Music student a symmetrical education, literary and scientific, as well as musical. On the other hand, the existence of a department of Music affords advantages in musical training to the students in all the other departments.

Instruction is furnished free of charge in a number of branches, while in others the tuition fees are merely nominal.

Credit for Music on College Courses.

By special action of the University Faculty a certain amount of credit is allowed toward baccalaureate degrees for work in Music.

1. A candidate for the degree of Bachelor of Arts or Bachelor of Science may elect three courses in Music to be credited toward the degree.

2. A candidate for the degree of Bachelor of Philosophy may elect five courses in Music to be credited toward the degree.

3. A candidate for the degree of Bachelor of Letters may elect six courses in Music to be credited toward the degree.

4. At least two of the courses in Music for which credit is given must be in the Science of Music,—that is, in Harmony, or in Counterpoint, or in the Theory of Music, or in Analysis.

5. No credit toward degrees will be given for the first three courses in Piano, Violin or other stringed instruments, or Voice.

Building and Equipment.

The School of Music occupies a building fitted up especially for its needs. The rooms both for teaching and practice purposes are large, with high ceilings, sound-proof partition walls, polished oak flooring, electric light, and steam heat. There is also a comfortable reception-room, where students may rest while waiting for their lesson periods. Surrounding the building upon all sides the scenery is superb,—campus, romantic ravine, and winding river, with steep, wooded banks. The equipment of pianos is of the best, and all the instruments are new. The large and commodious Chapel, seating 1600 people, contains a fine new Knabe Concert Grand Piano, and a large three-manual Pipe Organ, now under construction, will be completed and erected by the beginning of the Fall Quarter. Excellent opportunities are thus afforded for recital and concert work.

Time Required to Complete a Grade.

Attention is called to the fact that the time required to complete a grade depends upon the student's talent, age, previous instruction, and amount of daily practice. With good health and thoroughly systematized work, a grade (three courses) should be completed in a year.

Requirements for Diploma and Certificate.

A course in sight reading, memorizing, and technical work is followed through all the courses. A knowledge of Harmony, Theory and Musical History is essential to an intelligent interpretation of Music. Elementary study in these three branches is required for completion of the third grade. Students completing the fourth grade will be entitled to a certificate. A candidate for a diploma must complete the required

courses of study of some instrument or Voice, together with the courses in Harmony and Theory, passing satisfactory examinations thereon, and must perform in public during the last year of study an entire concert program to test his or her ability to interpret correctly the different schools of composition. Candidates for a diploma in Voice Culture, in addition to the above, must satisfactorily complete the first two grades in the Piano course, and at least two courses in German and Italian.

Candidates for a fourth grade certificate must pass a satisfactory examination in Sight Reading, Memorizing, Technique, Musical History, and have taken at least one quarter's work in Harmony.

Recitals.

A very necessary part of a student's education is the development of confidence, which can only be acquired by appearing occasionally before an audience. To meet this need, Students' Recitals have been established, some of which are open to the public, others only to the intimate friends of the participants. Advanced students from time to time appear before the large student body at the daily chapel service. There are also classroom recitals, at which different styles of compositions are analyzed and rendered, tracing the historic development from the Classic to the Romantic period.

Tuition.

Students whose work is all in the School of Music are not required to pay the usual University fees, but are entitled to all the privileges of the other University students, including the numerous public lectures, which are given frequently by eminent specialists.

By action of the Board of Regents, and by means of state aid, tuition has been entirely abolished in some departments of the School of Music, and made merely nominal in others. The fees are as follows:

Tuition per quarter (12 weeks):

Piano (with Head of Department):

2 lessons a week, of 30 minutes each $9.00
2 lessons a week, of 60 minutes, class of 2, each..... 9.00

Piano (with Assistant):

2 lessons a week, of 30 minutes each..... 6.00
2 lessons a week, of 60 minutes, class of 2, each..... 6.00

Voice Culture:

2 lessons a week, of 30 minutes each..... 9.00

Violin, Viola, Mandolin, Guitar, Banjo, Banjeaurine, etc., free.

Wood and Brass Wind Instruments:

2 lessons a week, of 30 minutes each..... 6.00
2 lessons a week, of 60 minutes, class of 2, each..... 6.00

There will be no deduction for lessons missed by pupils, unless caused by long continued illness, when the loss will be equally divided between the School and the student.

Pianos for practice one hour per day will be furnished at $3.50 per quarter of twelve weeks; two hours per day, $6 per quarter; three hours per day, $7.50 per quarter.

A contingent fee of $2.00 for each quarter is payable at the beginning of the quarter, to be applied to the purchase of music, etc.

All tuition and other fees are payable strictly in advance to the Director of the School of Music.

Free Advantages.

The recitals and Concerts by the Faculty and advanced students of the School of Music are all free to students in this department.

The Choral Society, Glee Club, Women's Chorus, the Military Band, Orchestra, and Mandolin, Guitar and Banjo Club are all open to students of the School of Music who are competent to enter them.

The courses in Violin, Viola, Mandolin, Guitar, Banjo, Banjeaurine, etc., sight reading, memorizing, and technical work, with elementary work in Harmony, Theory, and Musical History, are free to students of the School of Music.

Hon. Richard Randolph McMahon, of Harper's Ferry, a Regent of the University, has offered a prize of twenty-five dollars, to be invested in standard works on music, and given to the students in the School of Music making the most progress this year. An additional prize of twenty-five dollars is offered in the Piano department to the student in the fourth grade passing the best examination.

Sheet music is furnished at a liberal discount.

The Library contains a large number of standard works upon music, all of which are available to students.

Courses of Instruction.

All the courses here announced are given every quarter, and may be begun at any time during the year, as the instruction is largely private.

Piano.

MISS MCMURPHY AND MISS MARTIN.

1, 2, 3. FIRST GRADE.—Emery's "Foundation Studies;" Studies by Gurlitt, Biehl, Bertini; Lynes' "Advancement Studies;" Compositions by Reinecke, Rohde, Emery, Lynes, Kullak, and others.

4, 5, 6. SECOND GRADE.—Studies by Czerny, Loeschorn, Heller, Krause; Clementi's Sonatinas; Kunz's Canons; "Schumann Album for the Young;" Compositions by Krause, Kullak, Emery, and other modern writers.

7, 8, 9. THIRD GRADE.—Czerny's "Forty Daily Studies;" "Octave Studies" by Turner and Kullak; Bach's "Little Preludes and Fugues," and "Two Part Inventions;" Easier Sonatas of Haydn and Mozart; Mendelssohn's "Songs Without Words;" Compositions by Godard, Schumann, and others.

10, 11, 12. FOURTH GRADE.—Moscheles' opus 70; Kullak's "Octave Studies;" Clementi's "Gradus ad Parnassum;" Bach's "Suites" and "Three Part Inventions;" Sonatas by Haydn, Mozart, Beethoven; Compositions by Chopin, Schumann, Mendelssohn, Raff, Moszkowski, Schubert, Grieg, and others.

13, 14, 15. FIFTH GRADE.—Chopin's op. 10 and 25, and Preludes; Bach's "Preludes and Fugues;" Sonatas by Beethoven; Concertos by Beethoven, Mozart, Mendelssohn; Compositions by Liszt, Henselt, Chopin, Weber, and others; Concertos for two pianos.

Organ.

PROFESSOR ELLENBERGER.

Organ students are expected to finish at least the first three grades in Piano before beginning Organ work.

1, 2, 3. THIRD GRADE.—Stainer's "Organ Primer;" Whiting's "First Studies;" "Rink-Best Organ School," Book III; Bach's "Easy Preludes and Fugues;" Whiting's "The Organist;" Hymn Tunes and Registration; Compositions by Thayer, Silas, Volckmar, Guilmant, Lemmens, and others.

4, 5, 6. FOURTH GRADE.—"Rink-Best Organ School," Books IV and V; Bach's "Preludes and Fugues;" Accompaniment; Eddy's "Church and Concert Organist;" Anthems; Mendelssohn's Sonatas; Compositions by Guilmant, Merkle, Bach, and others; Whiting's "Twenty Preludes and Postludes."

7, 8, 9. FIFTH GRADE.—Bach's "Preludes and Fugues;" Sonatas by Mendelssohn, Guilmant, Merkle, Rheinberger; Compositions by modern composers.

Voice.

PROFESSOR ELLENBERGER.

1, 2, 3. FIRST GRADE.—Breathing, control of throat, jaws, tongue, lips, etc.; tone placing; dictation exercises for special needs of individual voices; selected technical exercises; English Ballads and Songs.

4, 5, 6. SECOND GRADE.—Breathing, tone placing, dictation exercises, with selected technical exercises from Marchesi, Bordesi, Nava, Panof a, Concone; English Ballads and Songs; German Lieder.

7, 8, 9. THIRD GRADE.—Breathing, tone placing, dictation exercises, with selected technical exercises from Bordesi, Marchesi, Sieber;

English and Italian Songs; German Lieder; English Oratorio; Concert Songs.

10, 11, 12. Fourth Grade.—Dictation exercises, with selected technical exercises from Bordogni, Sieber, Marchesi, Lamperti, etc.; English Oratorio; Italian and German Operatic Selections; German Lieder; Concert Songs.

13, 14, 15. Fifth Grade.—Dictation exercises, with advanced technical exercises from Bordogni, Marchesi, Lamperti, Sieber, etc.; English Oratorio; Italian, French and German Opera; Bravura Singing.

Violin.

Mr. Keene.

1, 2, 3. First Grade.—Tour's "Primer;" exercises in the First Position; development of tone; Pleyel's duets, opus 8.

4, 5, 6. Second Grade.—Schradieck's "Technical School," Book I; First, Second and Third Positions; Kaiser's "Studies," opus 20; Pleyel's duets, opus 48; Solos in First Position.

7, 8, 9. Third Grade.—Schradieck's exercises in the higher Positions; Kreutzer's Etudes; Pleyel's duets, opus 59; Fantasias by Singelee, Alard, etc.; Airs Varie, DeBeriot.

10, 11, 12. Fourth Grade.—First Part of Fiorilio's Etudes; Maza's duets, opus 71; Krommer's Etudes, opus 22; Concertos by DeBeriot; Solos by Hauser, Wienawski, etc.

13, 14, 15. Fifth Grade.—Fiorilio's Etudes continued; Fantasias by Vieuxtemps, Alard, etc.; Concertos by Mendelssohn, Beethoven, Bruch, Sarasate.

Advanced students may study *ensemble* works in conjunction with pupils from the Piano department. They are also admitted to the orchestra.

Guitar, Banjo, and Mandolin.

Mr. Keene.

In response to the demand growing out of the popularity of these instruments, courses are offered in each. Special attention is given to the development of a systematic fingering for both hands, tone, touch, and accurate execution.

Text-books for Guitar: Holland, Carcassi, Carulli, Sor.
Text-books for Banjo: Dobson, Stewart, Henning.
Text-book for Mandolin: "Christofaro's Method."
Selected Solos.

Wood and Brass Wind Instruments.

MR. HILL.

Equivalents for the foregoing.

The courses outlined for the various branches are simply intended to represent, in a general way, the character of each year's work. It is not intended that each student shall take all of the studies mentioned in the branch he wishes to pursue, and equivalents are liberally used to suit individual cases.

Harmony.

PROFESSOR ELLENBERGER AND MISS MCMURPHY.

A thorough knowledge of elementary Harmony is absolutely essential to every musician, whether artist or amateur. The School of Music offers a course of study covering one year, which includes a knowledge of intervals and scales, formation and progression of chords, treatment of suspensions, open harmony, etc., with practical work in harmonizing chants and chorals, and analyzing simple compositions. Emery's "Elements of Harmony" is the text-book.

1. Intervals, scales, formation and progression of common chords, with their inversions; seventh chords, modulations, harmonizing bass progressions, close harmony.

2. Modulations, Suspensions, Open Harmony, Appogiatura, and passing notes, Organ point, harmonizing melodies.

3. Harmonizing melodies, Double Chant, Chorals, etc.

Counterpoint.

PROFESSOR ELLENBERGER.

Three courses.

Theory of Music.

PROFESSOR ELLENBERGER AND MISS MCMURPHY.

1, 2, 3. Acoustics; compass and characteristic effects of all orchestral and band instruments; history of Notation, and of the Piano and Organ. Outlines of musical forms, their origin and development. History of the different Schools of Music, etc. Elson's "Theory of Music," and Naumann's or Fillmore's "History of Music" are the text-books used. The instruction is given largely by means of lectures and blackboard demonstrations, the text-book being used chiefly for reference.

Analysis and Choral Work.

PROFESSOR ELLENBERGER.

1, 2, 3. This very important but generally neglected branch of musical education is given special attention. The required work fills three courses (one year), and includes the rudiments of music, theory and practice in staff, clefs, notation, scales (major and minor), transpositions, singing at sight plain harmonies, and chorus work (Women's Chorus, Men's Glee Club, or Choral Society).

Morgantown has many natural advantages, and with the newly adopted four-quarter system of the University, and its regular summer session, affords music students the unusual opportunity of uninterrupted work throughout the entire year.

Students will be received at any time, but not for less than one quarter.

Students entering the School of Music within the first two weeks of a quarter will be charged for the full quarter; after that time, for the remainder of the quarter, and one week additional.

Students of the School of Music are not allowed to take part in public programs without the consent of their respective teachers.

All correspondence regarding this department should be addressed to

C. A. ELLENBERGER,
Director of the School of Music,
Morgantown, W. Va.

THE DEPARTMENT OF DRAWING AND PAINTING.

MRS. HUBBARD.

The object of this department is to afford thorough and sytematic instruction in Drawing, Painting and Designing.

The University provides a large, well-lighted studio, containing drawing stands, easels, china kiln, etc., and a large collection of casts and models. Students also have access to the University museum for study, and to the University Library for works on the history and development of Art.

The regular classes in Drawing are open without charge to all students of the University, but for more advanced work in Crayon and in the Painting classes, moderate fees are charged, as follows:

FOR ONE QUARTER (TWELVE WEEKS), THREE LESSONS WEEKLY:

Special Drawing	$5.00
Crayon	5.00
Water-color	8.00
China Painting	8.00
Oil Painting	9.00
Pastel Painting	9.00

Students whose work is all in this department are not required to pay the usual University fees, but are entitled to all the privileges of the other University students—Library, lectures, etc. Fees are payable in advance to the Treasurer of the University, for the Art Fund.

Candidates for degrees in the College of Arts and Sciences in all courses may elect and receive credit for two courses in Drawing; and students in the Modern Literature course may, in addition, elect and receive credit for a third advanced course in Drawing or one course in Painting. No college credit, however, is given for Course 1 in Drawing.

Historical lectures on Architecture, Sculpture and Painting will be given at intervals to all students connected with the department.

Drawing.

1. Freehand Drawing. An elementary course in study of outline, form and geometric design. Drawing from cast and groups of objects. This course is required of Preparatory students in the Scientific and Civil Engineering courses, and for all advanced work in the

Art department, if not taken elsewhere, but is open to any University student. No College credit is given for this course.

Fall, 9.00; 12 S.

2. Perspective Drawing. Elementary projection, orthographic and isometric. Linear perspective; principles studied and applied to the construction of arches, buildings, etc. Drawing of familiar objects. Designs of architectural ornament from the cast. Reference books, Minifie's "Mechanical Drawing," Trowbridge's "Perspective Drawing."

Winter, 9.00; 12 S.

3. Freehand Drawing. Study of casts and still life in outline and in light and shade. Principles of chiaroscuro. Drawing of groups of objects, shaded. Studies from plant life. Analysis and drawings of Grecian architecture. Reference books, "Light and Shade," by Anson K. Cross, and Goodyear's "History of Art."

Spring, 9.00; 12 S.

4. Advanced Freehand Drawing. Lettering, line and brush shading; pen topography; charcoal work; coloring; representation of earth, wood, masonry, etc. Lectures and drawing from the model. Required of Civil Engineering Freshmen. Winter, 8.00; 12 S.

5. Advanced Drawing. Study of design and composition. Analysis of decorative and historic ornament. Original designs by class. Study of plant and animal life in design. Drawing of details of human figure from the cast. Study of the head. When the weather is favorable, sketching and drawing on the University grounds.

Fall, 10.00; 12 S.

6. Course in Composition. Study from the antique and from the model. Original drawings by students illustrating subjects assigned by instructor. Text-book, Goodyear's "History of Art."

Winter, 10.00; 12 S.

7. Course in Applied Design. Continued study from the draped model and the antique. Drawing of designs for book covers, wall papers, borders, and general decorative surfaces. Geometric, conventional and floral designs. Spring, 10.00; 12 S.

In the Drawing classes, pen, pencil, charcoal or crayon is used according to the advancement of the student and the medium best adapted to the subject. Clay modeling is also used as an aid to the study of form.

Painting.

1. Oil Painting. Color analysis and combinations. Painting from still life, fruits, flowers, draperies, etc. Landscape painting. Study of the draped model. 12 S.

2. Pastel Painting. The various studies of color and design suitable for expression in this medium. Special study for pastel portraits and the draped figure. 12 S.

3. Water-Color Painting. Study from the flat and from nature, still life, landscape or model. Design from plant life and conventional. Figure and portrait painting. 12 S.

4. China Painting. Study of colors and combinations. Painting from the flat. Study of design in flowers, landscapes, etc., leading to original designs. China burned in the studio kiln. 12 S.

The Regular Art Course.

This course of four years is so planned that the student may acquire not only the technique of drawing and painting, but also a general art education and a degree of æsthetic culture tending to develop individual powers of composition and art expression.

The work of the first year includes light and shade drawing from the antique, study of perspective, sketching from nature, drawings of still life, and study of form carried out in clay modeling.

The second year continues the drawing from cast in charcoal and crayon, copying the head, mask and ornament from the antique. Color studies in water-colors and oil are given alternating with the work in black and white.

During the third and fourth years the student copies the bust and full-length figure from the antique, paints from the draped model in the life class, and studies portrait painting and composition or sketching from nature and landscape painting.

Class lectures are given upon perspective, anatomy, composition, and art history. To those taking this course studio privileges for practice and special study will be given. The course includes painting in oil, water-color, pastel or china paints.

The Normal Art Course.

This course is designed for teachers in public or normal schools. It comprises free-hand drawing of ornament, mask, and head from the antique; study of still life; perspective and mechanical drawing; sketching; study of design; study of color and form developed in water-color painting and clay modeling.

Class lectures are given on the teaching of form and color, and the history of art.

Students should spend two years in pursuing this course; but to suit individual needs, the course may be shortened, and what is most essential will be given in the time available.

THE COMMERCIAL SCHOOL.

STAFF OF INSTRUCTION.

Faculty.

JEROME HALL RAYMOND, Ph.D., President of the University, and Professor of Economics and Sociology.

DENNIS MARTIN WILLIS, Principal of the Commercial School, and Instructor in Bookkeeping and Shorthand.

ELIZABETH LEE WHITESCARVER, Instructor in Shorthand and Typewriting.

Other Instructors Giving Courses in this School.

ROBERT ALLEN ARMSTRONG, A.M., Vice-President of the University, and Professor of English.

THOMAS CLARK ATKESON, Ph.D., Dean of the College of Agriculture, and Professor of Agriculture.

OKEY JOHNSON, A.M., LL.B., Dean of the College of Law, and Professor of Constitutional, International and Corporation Law.

THOMAS CONDIT MILLER, A.M., Principal of the Preparatory School, and Professor of Pedagogy.

THOMAS EDWARD HODGES, A.M., Professor of Physics.

CHARLES HENRY PATTERSON, A.M., Professor of Rhetoric and Elocution.

SAMUEL B. BROWN, A.M., Professor of Geology and Mineralogy.

WILLIAM P. WILLEY, A.M., Professor of Commercial Law.

ALEXANDER REID WHITEHILL, Ph.D., Professor of Chemistry.

DANIEL JENIFER BARTON, A.B., Assistant in Mathematics.

LLOYD LOWNDES FRIEND, A.B., Assistant in English.

WILLIAM EARL RUMSEY, B.S.Agr., Instructor in Botany.

The Commercial School.

This School was established in 1895, the object being to prepare young men and women for practical business life, and to give to students in the other departments of the University an opportunity to study the subjects taught in this School. Students in the College of Arts and Sciences, the College of Law, and the other departments of the University may take any of the work outlined in the Commercial School without additional fees.

The instruction in the Commercial course is given in connection with the work done by the professors in the other departments of the University, the curriculum being articulated with the other courses.

Students are permitted to make arrangements by which they can take special courses in Bookkeeping, Shorthand and Typewriting, thus preparing themselves to act as secretaries, amanuenses, assistants in business offices, court reporters, etc. The special advantages include a thorough course in English and an acquaintance with the routine work and technicalities of business.

A certificate will be granted to students who complete the courses and pass the required examinations and tests.

Fees.

Tuition is free to West Virginia students. To students from other States, the tuition in the Commercial School is $5.00 per quarter—twelve weeks.

The matriculation fee is $5.00, payable upon entering the University by all students. Unless a student remains out of school for more than three years the matriculation fee is paid but once by each student.

The contingent fee of $2.00, for each quarter, is payable at the beginning of the quarter.

A Typewriter fee of $1.00, payable at the beginning of each quarter, is charged each student for the use of the typewriter during the term.

The total University charge during the first quarter for students from West Virginia in the Commercial School amounts to $7.00, and each succeeding quarter $2.00. State cadets are furnished with books, stationery and uniforms free, and are not required to pay any fees.

Requirements for the Two-Year Commercial Course.

1 course in Chemistry.
6 courses in English.
1 course in Commercial Geography.
1 course in Economics.
1 course in Botany.
1 course in Freehand Drawing.
2 courses in Bookkeeping.
3 courses in Commercial Law.
1 course in Bank Accounting.
3 courses in Shorthand.
2 courses in Typewriting.
1 course in the History of Commerce.
1 course in Physics.
1 course in Geology.

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25 courses.

The requirements for admission are as follows:

1. **History:**
   (a) General History,—Myers, or an equivalent;
   (b) United States History,—Fiske, or an equivalent.
2. **English:**
   (a) Spelling, punctuation and paragraphing;
   (b) English Grammar completed, with ability to write good English;
   (c) Reed & Kellogg's Grammar completed, or an equivalent.
3. **Mathematics:**
   (a) Arithmetic completed,—Greenleaf's, or an equivalent;
   (b) Algebra,—Milne's "High School Algebra," or an equivalent.
4. **Elementary Science:**
   (a) Physical Geography;
   (b) Human Anatomy and Physiology,—Cutter's, or an equivalent;
5. **Civil Government:**
   Fiske's, or an equivalent.

Schedule of Studies.

FIRST YEAR.

HOUR.	SUMMER.	FALL.	WINTER.	SPRING.
8.00	Bookkeeping	Geology 1	Typewriting	Botany 2
9.00	Shorthand	Chemistry 1	Economics 2	Fr. Hd. Drawing
10.00	Penmanship	Prep. Eng. 7	Prep. Eng. 8	Prep. Eng. 9
11.00	Typewriting	Penmanship	Com. Geog.	Physics 1

SECOND YEAR.

8.00	Bookkeeping	Bookkeeping	Bookkeeping	Bank Accounting
9.00	Shorthand	Com. Law	Com. Law	Com. Law
10.00	Typewriting	Shorthand	Shorthand	Shorthand
11.00	Penmanship	Rhetoric 1	Rhetoric 2	Rhetoric 3

Departments of Instruction.

The studies that are taught in this department are the only courses described here. See the announcements of the Preparatory School and the College of Arts and Sciences for a description of the culture courses.

Bookkeeping.

MR. WILLIS.

1. Business Practice. This is an introductory course, consisting of business practice and extensive drills in the use of vouchers,

files, and in journalizing, posting, etc. In the course the student familiarizes himself with all the elementary rules and fundamental principles of bookkeeping. The student, in doing this work, is engaged as a bill clerk, shipping clerk, warehouseman, secretary, and bookkeeper for a firm doing a general merchandising business.

Text-book, "Office Routine and Bookkeeping," Prerequisites, Penmanship, Commercial Arithmetic, or an equivalent.

Summer, Fall, Winter, and Spring, 8.00; 24 U.

2. Office Work and Accounting. This course is a continuation of Courses 1, the student becoming a member of the firm, and general manager and bookkeeper. There are frequent drills in making inventories of the property and resources and liabilities, financial statements, balances and balance sheets, etc. The student is required to write all articles of agreement, deeds, mortgages, bills of sale, etc. The adjustment of losses and the settlements with insurance companies after a fire is a special feature of this course. Changing the firm and the kind of business, etc., and changing from double to single entry bookkeeping. Text-book, "Office Routine and Bookkeeping."

Summer, Fall, Winter, and Spring, 8.00; 24 U.

3. Special Accounting. A theoretical course in keeping the accounts in special lines of business, as lumber, shipments and consignments, commission and shipping, jobbing, installments, railroad bookkeeping, etc. This is an advanced course which is not required in the regular Commercial course. Text-book, "Advanced Bookkeeping," Williams & Rogers. Prerequisites, Bookkeeping 1 and 2.

Summer, Fall, Winter, and Spring, 8.00; 24 U.

4. Bank Accounting. A complete course in bank accounting and practice, consisting of working in the bank as teller, bookkeeper, etc.; and the theoretical work as outlined in the text. This is the system that is universally used in the banks of this country and approved by the National Bankers' Association. Prerequisites, Bookkeeping 1 and 2. "New Banking," Williams & Rogers.

Fall, Winter, and Spring, 8.00; 24 U.

Shorthand.

MR. WILLIS and MISS WHITESCARVER.

1. Theory. This course includes the basis and fundamental principles of the art. Special attention is given to accuracy in the execution of the consonants. Thorough drills are given in the use of vowels and vowel positions. Introduction of word signs and special phrasing from day to day, and cumulative principles, modifications of consonants and affixes, as outlined in Dement's "Pitmanic Shorthand," to page 88. Summer, Fall, Winter, and Spring, 8.00; 24 U.

2. Cumulative Phrasing. This course is a continuation of Course 1. Cumulative principles and affixes are introduced in their natural order. Following this, cumulative phrasing, which consists in the indication of the omission of words by special use of the principles given in Course 1. Special contractions and special phrasing, etc. This work will be presented in the order given in Dement's "Pitmanic Shorthand," pages 88 to 232.

Summer, Fall, Winter, and Spring, 9.00; 23 U.

3. Speed Practice and General Dictation. Letter writing, speed practice, and writing after general dictation. Writing testimony and argument will be a special feature in the course. Special attention is given to each individual student in this course in order to prevent speed practice from destroying accuracy of notes, etc. Most of the dictation and reading exercises are to be found in Dement's "Dictators," Nos. 1, 2, 3, 4. Summer, Fall, Winter, and Spring, 10.00; 23 U.

4. Court Reporting. This is a special course in court reporting given to students who have completed Courses 1, 2, and 3. This work is given in connection with the moot courts in the College of Law. The student is appointed court stenographer by the judge of the court, and reports the cases tried in that court and in the justices' courts of the same department. Duplicate reports are submitted for inspection. This gives the student actual practice in court reporting, as required by the West Virginia law. In addition to this actual practice daily drills are given to acquire speed in writing and transcribing testimony, etc. Brown's "Court Reporting" is used as a text-book.

Summer, Winter, and Spring, 2.00 to 4.00.

Penmanship.

MR. WILLIS.

1. Penmanship. This is a course in plain business writing. Students are required to eliminate all unnecessary flourishes and to reduce their writing to a rapid, plain and abbreviated style of penmanship. They are permitted to use either the vertical or slant writing. The modern and improved methods of instruction are used, with Palmer's "Penmanship Budget" as a guide. Fall and Winter; 24 U.

Typewriting.

MISS WHITESCARVER.

1. Typewriting. The "Smith Premier" machine is used for instruction and practice. The instruction includes thorough drills on the various exercises outlined in the text. This furnishes the student with a knowledge of the mechanism of the machine, which is essential in its adjustment. Text-book, Gaylord's "Typewriting."

Summer, Fall, Winter, and Spring, 8 to 12, and 2 to 4; 23 U.

2. Transcribing. Students of Shorthand are required to take this course in connection with Course 3 in Shorthand. This work consists of constant practice in writing from shorthand notes, and the use of the various duplicating apparatus, etc. No text is used.

Summer, Fall, Winter, and Spring, 8.00 A. M. till 4.00 P. M.

Commercial Law.

DEAN JOHNSON AND PROFESSOR WILLEY.

1. Contracts. The object of this course is to group, set in order and illustrate the entire elementary doctrine of the law of contracts in such a manner as to render obvious their application in practice. This course is given by lectures, with assigned readings from a prescribed text-book, and law reports. Professor Willey. Fall, 9.00; 14 U.

2. Negotiable Paper. This course deals with the law of negotiable paper, beginning with the origin of negotiability, and showing the mode and practice of Law Merchant, and the effect the various statutes have had upon them. The mode of instruction is by lectures, being the same lectures taken by students of the LL.B. course, and by assigned cases to be read as authority.

Professor Willey. Half course. Winter, 9.00; 14 U.

3. Bailments and Suretyship. The work in the course embraces the law of bailments, which to-day is the great factor in commerce, and the law of guaranty and suretyship, and the law of insurance. Instruction is given by lectures, quizzes and assigned readings.

Professor Willey. Half course. Winter, 9.00; 14 U.

4. Agency. This is a course in the law of agency. The course covers the principles that govern the relations of principal and agent, and of their authority, and what constitutes revocation, etc. Instruction is given by lectures, quizzes and assigned cases to be read.

Dean Johnson. Half course. Spring, 9.00; 11 U.

Commercial Geography and History.

PROFESSOR ATKESON.

1. Commercial Geography. A description of the surface of the earth, with special reference to the production, manufacture, transportation, and exchange of articles of trade. A general outline of the countries of the world, soil, climate, agricultural products, forests, manufactories, quarries, mines, centers of industry, foreign relations, ways of communication, social relations and conditions, imports, exports, and markets. Special attention is given to the study of the United States, area, climate, position, population, natural resources, raw products, manufactures, waterways, railways, seaports, exports, imports, reasons for rapid growth of Western cities, industrial possibilities. Text-book, Chisholm's "Smaller Commercial Geography."

Half course. Fall, 10.00; Winter, 11.00; A.

2. History of Commerce. History of commerce; methods of exchange in ancient times; shipping of the ancients; fairs and markets; results of maritime discoveries; changing the commercial routes; international treaties affecting commerce; scientific and industrial discoveries affecting commerce; trade restrictions; consuls and modern commerce; boards of trade; stock and produce exchanges; modern transportation; freight express companies; insurance; modern modes of preparing and shipping articles of merchandise; circulation of commodities between cities and countries; trade statistics; dependence of manufactures upon producers of raw material; nomenclature of commerce. Text-book, Gilbert's "History and Principles of Commerce." Fall, 10.00; Winter, 11.00; A.

THE PREPARATORY SCHOOLS.

The Preparatory School at Morgantown.

STAFF OF INSTRUCTION.

The Faculty.

JEROME HALL RAYMOND, Ph.D., President.

THOMAS CONDIT MILLER, A.M., Principal, and Professor of Pedagogy.

ALFRED JARRETT HARE, A.B., Professor of the Latin Language and Literature.

RICHARD ELLSWORTH FAST, LL.B., A.M., Colonel, aide-de-camp, General Staff, W. V. N. G., Acting Professor of Military Science and Tactics.

DANIEL JENIFER BARTON, A.B., Assistant in Mathematics.

LLOYD LOWNDES FRIEND, A.B., Assistant in English.

DANIEL WEBSTER OHERN, A.B., Assistant in Greek.

THOMAS CARSKADON JOHNSON, B.S.Agr., Fellow in Mathematics.

BERNARD CAMILLUS BONDURANT, A.M., Fellow in Latin.

Other Instructors Giving Courses in this School.

JAMES WILLIAM HARTIGAN, A.M., M.D., Professor of Biology.

SAMUEL B. BROWN, A.M., Professor of Geology and Mineralogy.

THOMAS EDWARD HODGES, A.M., Professor of Physics.

LEWIS CASS WOOLERY, A.M., Professor of the Greek Language and Literature.

RICHARD ELLSWORTH FAST, LL.B., A.M., Professor of American History and Political Science.

FREDERIC WILLIAM SANDERS, Ph.D., Professor of European History.

FREDERICK WILSON TRUSCOTT, Ph.D., Professor of Germanic Languages and Literatures.

KENNETH McKENZIE, Ph.D., Professor of Romance Languages and Literatures.

EVA EMMA HUBBARD, Instructor in Drawing.

Purpose.

The Preparatory School is maintained to fit young men and young women for the various courses of the University, and it offers excellent opportunities for both mental and moral development under helpful guidance. Those who have not the advantages of an academy or good high school near home may here receive instruction in any of the common branches. Many of the young men in this school are enrolled in the Cadet Corps, and the habits of neatness, accuracy, and mental and bodily discipline inculcated therein are an invaluable part of a young man's training.

Students who are deficient in only one or two branches of this School may, while finishing this work, take some College studies. But all of the required work of the Preparatory course must be completed before a student is permitted to go on regularly into any University course. Those who do not expect to take a course in the University will be given such studies in the Preparatory School as they are able to pursue profitably.

Admission.

For admission to this School applicants must be at least fifteen years of age, and they should present a certificate of scholarship from their last instructor or the last school with which they were connected. They should be proficient in the ordinary course of study pursued in the public schools of the state, and especially in English grammar and arithmetic. No regular examination is required for admission to the classes of the first year, the student being admitted on trial; if he is not able to pursue the course successfully, he is required to withdraw. Students desiring to take the studies of the second, third or fourth Preparatory year will be examined as to their ability to enter the classes of that year, unless they otherwise satisfy the Principal that they are qualified for entrance.

Promotion.

No student will be permitted to enter any higher class or section until he shall have passed in the lower, or shown by special examination that he is able to go on satisfactorily.

Advanced Standing.

The work in this School is so arranged as to enable students to take the course in the shortest time consistent with the attainment of the required proficiency. Students who, upon entering, can take advanced standing, and who are capable of making good progress, may finish the course in one year. When they do not lack much of the course, they may even finish it in one or two quarters. Students who must take the

course from the beginning, and who cannot make rapid progress, will find it necessary to give three years, or even more, to the work of this School. In order that a student may complete the mathematics of this School in two years, he must be well along in arithmetic and possess considerable knowledge of algebra.

Co-education.

Young men and young women are admitted on equal terms.

Preparatory Requirements.

The Preparatory courses required for admission to the Freshman class in the courses leading to the several baccalaureate degrees offered by the College of Arts and Sciences are as follows:

Classical Course.

1 course in Ancient History.
1 course in Modern History.
1 course in United States History.
9 courses in English.
1 course in Arithmetic (completed).
4 courses in Algebra.
2 courses in Plane Geometry.
1 course in Solid Geometry (after July 1, 1900).
1 course in Physical Geography.
1 course in Physics.
1 course in Physiology.
1 course in Botany.
9 courses in Latin.
6 courses in Greek.

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39 courses required.

Scientific Course.

1 course in Ancient History.
1 course in Modern History.
1 course in United States History.
9 courses in English.
1 course in Arithmetic (completed).
4 courses in Algebra.
2 courses in Plane Geometry.
1 course in Solid Geometry (after July 1, 1900).
1 course in Physical Geography.
1 course in Physics.
1 course in Physiology.
1 course in Botany.

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24 [*Forward to page 172.*]

24 Scientific Course. [*Continued from page 171.*]
6 courses in Latin.
6 courses in French or German.
2 courses in Free Hand Drawing.
1 course in Geometric Drawing.

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39 courses required.

Philosophical Course.

1 course in Ancient History.
1 course in Modern History.
1 course in United States History.
9 courses in English.
1 course in Arithmetic (completed).
4 courses in Algebra.
2 courses in Plane Geometry.
1 course in Solid Geometry (after July 1, 1900).
1 course in Physical Geography.
1 course in Physics.
1 course in Physiology.
1 course in Botany.
9 courses in Latin (or 6 courses in Greek).
6 courses in French or German, with Latin (or 9 courses of French or German, with Greek).

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39 courses required.

Modern Literature Course.

1 course in Ancient History.
1 course in Modern History.
9 courses in English.
1 course in Arithmetic (completed).
1 course in United States History.
4 courses in Algebra.
2 courses in Plane Geometry.
1 course in Solid Geometry (after July 1, 1900).
1 course in Physical Geography.
1 course in Physics.
1 course in Physiology.
1 course in Botany.
Ancient and Modern Languages as follows:
(1) 9 courses in Latin and
6 courses in Greek; or
(2) 9 courses in Latin and
6 courses in French or German; or
(3) 6 courses in Greek and
6 courses in French or German; or

(4) 6 courses in French and
6 courses in German.

36 to 39 courses required.

Preparatory Schedules.

Two schedules have been arranged for the Preparatory work:

(1) A four-year schedule for those who find it necessary to take all the work in the Preparatory School, and who are not able to carry more than three studies during the first three years of the course.

(2) A three-year schedule for those who have satisfactorily passed in Physiology, United States History, and Arithmetic, before entering the Preparatory School, and who are able to carry four studies throughout the three years.

I. Schedule Arranged for Four Years.

HOUR.	FALL.	WINTER.	SPRING.
		First Year.	
8.00	English 1	English 2	English 3
9.00	Physical Geography	Physiology	U. S. History
10.00	Ancient History	Modern History	Botany
		Second Year.	
9.00	Arithmetic	Beginning Algebra	Algebra
10.00	English 4	English 5	English 6
11.00	1st year Latin or 1st year French	1st year Latin or 1st year French	1st year Latin or 1st year French
		Third Year.	
8.00	Algebra	Algebra	Plane Geometry 1
9.00	1st year Greek or 1st year German	1st year Greek or 1st year German	1st year Greek or 1st year German
10.00	2nd year Latin or 2nd year French	2nd year Latin or 2nd year French	2nd year Latin or 2nd year French
		Fourth Year.	
8.00	2nd year Greek or 2nd year German	2nd year Greek or 2nd year German	2nd year Greek or 2nd year German
9.00	3rd year Latin or Fr. Hd. Drawing	3rd year Latin or Fr. Hd. Drawing	3rd year Latin or Geometric Draw'g
10.00	English 7	English 8	English 9
11.00	Plane Geometry 2	Solid Geometry	Physics

II. Schedule Arranged for Three Years.

HOUR.	FALL.	WINTER.	SPRING.
		First Year.	
8.00	English 1	English 2	English 3
9.00	Physical Geography	Beginning Algebra	Algebra
10.00	Ancient History	Modern History	Botany
11.00	1st year Latin or 1st year French	1st year Latin or 1st year French	1st year Latin or 1st year French
		Second Year.	
8.00	Algebra	Algebra	Plane Geometry 1
9.00	1st year Greek or 1st year German	1st year Greek or 1st year German	1st year Greek or 1st year German
10.00	2nd year Latin or 2nd year French	2nd year Latin or 2nd year French	2nd year Latin or 2nd year French
11.00	English 4	English 5	English 6
		Third Year.	
8.00	2nd year Greek or 2nd year German	2nd year Greek or 2nd year German	2nd year Greek or 2nd year German
9.00	3rd year Latin or Fr. Hd. Drawing	3rd year Latin or Fr. Hd. Drawing	3rd year Latin or Geometric Draw'g
10.00	English 7	English 8	English 9
11.00	Plane Geometry 2	Solid Geometry	Physics

Department of Instruction.

English.

Professor Miller and Mr. Friend.

First Year.

1. Harvey's Grammar, with careful drill in orthography, punctuation, etc. Fall, first section, 8.00; second section, 9.00; 10 M.

2. Whitney's "Essentials of Grammar."
Winter, first section, 8.00; second section, 9.00; 10 M.

3. Reed and Kellogg's "Higher Lessons in English" to Lesson 112, with oral analysis and especial attention to synthetic exercises.
Spring, first section, 8.00; second section, 9.00; 10 M.

Second Year.

4. Reed and Kellogg's "Higher Lessons in English," completed, with drill in composition.
Summer, 9.00; Fall, first section, 10.00; second section, 11.00; 10 M.

5. Buehler's Practical Lessons in English, with critiques and reviews. Careful reading, with analysis and word study, of one of the English classics required for entrance to College.

Winter, first section, 10.00; second section, 11.00; 10 M.

6. Hill's "Elements of Rhetoric" to Chapter V, with one of the English classics as in Course 5.

Spring, first section, 10.00; second section, 11.00; 10 M.

Third Year.

7. Hill's "Elements of Rhetoric," completed, with continued drill in composition and one of the English classics as in Course 5.

Summer, Fall, 10.00; 23 S.

8. Irish's "Introduction to American Literature," with careful reading of some of the English classics required for entrance to College. In this and the following course the classics are read chronologically with a study of each author among his contemporaries, and as the representative of his period in literature and history. Winter, 10.00; 23 S.

9. English literature, including reviews and reading of the classics as in Course 8, continued. Spring, 10.00; 23 S.

Entrance Requirements.

The books prescribed for reading and for study and practice by the Committee on Entrance Requirements for the year 1899-1900 are as follows:

For Reading.

Dryden's "Palamon and Arcite;" Pope's "Iliad," Books I, VI, XXII, and XXIV; the "Sir Roger de Coverley Papers" in the *Spectator;* Goldsmith's "The Vicar of Wakefield;" Scott's "Ivanhoe;" De Quincey's "Flight of a Tartar Tribe;" Cooper's "Last of the Mohicans;" Tennyson's "Princess," and Lowell's "Vision of Sir Launfal."

For Careful Study.

Shakespeare's "Macbeth;" Milton's "Paradise Lost," Books I and II; Burke's "Speech on Conciliation with America," and Macaulay's "Essays on Milton and Addison."

A course of home reading is carried on throughout the first four quarters of the Preparatory Course in English, students being required to prepare short reviews of the books read and to pass suitable examinations upon them.

Latin.

PROFESSOR HARE AND MR. BONDURANT.

FIRST YEAR.

1. **Etymology.** Chase and Stuart's "First Year in Latin," pages 9-125. Summer, 11.00; Fall, first section, 8.00; second section, 11.00; Winter, 8.00; Spring, 9.00; 13 M.

2. **Syntax.** Chase and Stuart's "First Year in Latin," pages 126-200. Summer, 8.00; Fall, 8.00; Winter, first section, 8.00; second section, 11.00; Spring, 9.00; 13 M.

3. **Oratio Obliqua, and Caesar (Book I, chs. 1-29).** Chase and Stuart's "First Year in Latin," completed. Summer 2.00; Fall, 8.00; Winter, 9.00; Spring, first section, 8.00; second section, 11.00; 13 M.

SECOND YEAR.

4. **Caesar's Gallic War (Books I and II).** Summer, 10.00; Fall, 10.00; Winter, 9.00; Spring, 8.00; 13 M.

5. **Caesar's Gallic War (Books III and IV).** Winter, 10.00; 13 M.

6. **Cicero's First and Second Orations Against Catiline.** Spring, 10.00; 13 M.

THIRD YEAR.

7. **Cicero's Third and Fourth Orations against Catiline, and the Oration for Archias.** Summer, 9.00; Fall, 9.00; 13 M.

8. **Virgil's Aeneid (Books I, II, and III).** Winter, 9.00; 13 M.

9. **Virgil's Aeneid (Books IV, V, and VI).** Spring, 9.00; 13 M.

Allen and Greenough's "Grammar," Revised Edition, is used in Courses 4-9.

Greek.

PROFESSOR WOOLERY AND MR. OHERN.

1. **First Greek Book** (Chapters I-XL). This course is for beginners. Emphasis is laid on correct pronunciation, written accent, memorizing, vocabularies, declensions and conjugations, and translating easy sentences from Greek into English and from English into Greek to illustrate the principles of grammar as given in this elementary book. White's "First Greek Book." Summer, 8.00; Fall, first section 9.00; second section 10.00; Spring, 8.00; 8 M.

2. **First Greek Book** (completed). This is a continuation of Course 1, and the work is similar in character. Summer, 9.00; Fall, 12.00; Winter, first section 9.00; second section 10.00; 8 M.

3. Xenophon's Anabasis (Book I). Particular study of connected discourse, its forms, and its syntax. Goodwin's "Xenophon's Anabasis" and Goodwin's "Greek Grammar." Prerequisites, Greek 1 and 2. Fall, 11.00; Winter, 12.00; Spring, first section 9.00; second section 10.00; 8 M.

4. Xenophon's Cyropaedia (Books VII and VIII). This is an independent course given especially for Summer Quarter students. "Xenophon's Cyropædia," by Alfred Goodwin. Prerequisites, Greek 1, 2, and 3. Summer, 11.00; 8 M.

5. Xenophon's Anabasis (Books II, III and IV) **and Prose Composition.** A drill in forms and syntax is given, and, in general, a fuller knowledge of the grammar is required. White's "First Greek Book" and the first of "Xenophon's Anabasis," or an equivalent, are required for admission to this course. "Xenophon's Anabasis," by Goodwin; "Prose Composition," by Pearson. Prerequisites, Greek 1, 2, 3. Fall, 8.00; Winter, 11.00; Spring, 12.00; 8 M.

6. Lysias' Orations and Prose Composition (continued). The elements learned in composition are impressed on the memory in the orations, where more time is given to the simplicity and perfection of periods. "Lysias' Orations," by Stephens. Prerequisites, Greek 1, 2, 3, 5. Winter, 8.00; Spring, 11.00; 8 M.

7. Homer's Iliad or Odyssey (Books I, II and III) **and Homeric Verse.** All the text is read metrically, and passages are memorized. Etymology and Mythology receive special attention. Seymour's "Iliad." Collateral reading: Jebb's "Introduction to Homer;" Gladstone's "Time and Place of Homer." Prerequisites, Greek 1, 2, 3, 5, 6. Spring, 8.00; 8 M.

NOTE.—Six courses constitute the preparatory requirements in Greek. Students who take the seven courses will receive credit for one course in College.

French.

PROFESSOR MCKENZIE AND MR. BALLARD.

1. Elementary Course. Grammar, reading, and as much practice as possible in pronunciation and conversation. Whitney's or Edgren's Grammar; Super's or Whitney's Reader. Summer, 11.00; Fall, first section 11.00; second section 12.00; Spring, 9.00; 10 U.

2. Elementary Course. A continuation of Course 1. The Grammar and the Reader will be finished, and the reading of easy French texts continued. Summer, 9.00; Winter, first section 11.00; second section 12.00; 10 U.

3. Modern Prose. A continuation of Course 2. Reading from works by Erckmann-Chatrian, Enault, George Sand, etc.; Grandgent's "Materials for French Composition." It is expected that in Courses 1, 2, and 3 the elements of French grammar will be mastered, a fair

pronunciation acquired, and 450 to 500 pages of modern prose and poetry read. Spring, first section 11.00; second section 12.00; 10 U.

4. Fiction of the Nineteenth Century. Works of Daudet, Dumas, About, etc.; La Fontaine's Fables. Practice in writing and speaking French, continued through Courses 5 and 6. For students who have had one year of French. Summer, Fall, 10.00; 10 U.

5. Historical and Dramatic Works of the Nineteenth Century. Works of Michelet, Paileron, Dumas, Scribe, Victor Hugo. Winter, 10.00; 10 U.

6. Dramas of the Seventeenth Century. Corneille, Racine, Molière. Spring, 10.00; 10 U.

German.

Professor Truscott and Mr. Porterfield.

1. Elementary German. A course for beginners, the object being to acquaint the student with the elements of grammar, to give him a reading knowledge of the easiest German prose, and as much practice in pronunciation as possible. Thomas' Grammar, Part I; Harris' Reader, Part I. Summer, 9.00; Fall, first section 9.00; second section 11.00; third section 12.00; Winter, 12.00; 22 U.

2. Elementary German. A continuation of Course 1. Reading of easy prose and poetry. Some poems will be memorized and especial attention given to correct pronunciation. Reading at sight. Harris' Reader, Parts II, IV and VI.

Winter, first section 9.00; second section 11.00; Spring, 12.00; 22 U.

3. Elementary German. A continuation of Course 2. Reading and conversation. Elementary work on composition accompanied by a review of the Grammar. "Immensee." "Höher als die Kirche." "Im Zwielicht." Hatfield's "Materials for Composition." Spring, first section 9.00; second section 11.00; 22 U.

4. German Prose. Copious reading of German prose to render the student familiar with the idioms of the language and give him a large and varied vocabulary. Nichol's "Three German Tales," Bernhardt's "Novelleten-Bibliothek." Summer, Fall, 8.00; 22 U.

5. Composition and Conversation. Practice in writing German and translation of English prose into idiomatic German. A part of the time will be devoted to exercises in conversation. "Methode Berlitz, Erstes Buch." Harris' "Prose Composition." Winter, 8.00; 22 U.

6. German Poetry. "Hermann und Dorothea." Familiar German ballads. Spring, 8.00; 22 U.

History.

Professor Sanders and Professor Fast.

1. Ancient History. In this course, as well as in Course 2, Mrs. Sheldon-Barnes' text-book, "Studies in General History," will be

used as a guide so far as the time devoted to the course will permit of the use of such a handbook. Professor Sanders. Fall 10.00; 4 M.

2. Mediaeval and Modern History. See description of Course 1. Professor Sanders. Winter, 10.00; 4 M.

3. United States History. A narrative course bringing out some of the leading elements in the growth of local self-government in the colonies and states. Fiske's "History of the United States" is used as a text-book. Professor Fast. Spring, 9.00; 4 M.

Mathematics.

Mr. Barton, Mr. Willis, and Mr. Johnson.

1. Arithmetic. A review of the higher Arithmetic with particular attention to the application of Percentage, Mensuration, and the Metric System. Beeman and Smith's "High School Arithmetic."
Mr. Willis. Summer, Fall, Winter, Spring, 9.00; 23 U.

Algebra.

1. Algebra. The fundamental operations to Fractions, including Factoring, Highest Common Divisor, Lowest Common Multiple, and Simple Equations. Milne's "High School Algebra."
Summer, 11.00; Fall, 10.00; Winter, 9.00; Spring, 11.00; 7 M.

2. Algebra. Fractions to Quadratics, including Simultaneous Equations of the First Degree, Involution, Evolution, Radicals, and Theory of Exponents. Milne's "High School Algebra."
Summer, Fall, Winter, 10.00; Spring, 9.00; 7 M.

3. Algebra. Quadratics, Proportion, Progressions, Imaginaries, Indeterminate Equations, Inequalities. Milne's "High School Algebra."
Fall, 8.00; Winter, Spring, 10.00; 7 M.

4. Algebra. A review with special emphasis on the theory of Quadratic Equations, Variation, Permutations and Combinations, Binomial Theorem, Undetermined Coefficients and Summation of Infinite Series. Wells' "University Algebra."
Summer, Fall, 9.00; Winter, 8.00; Spring, 9.00; 7 M.

Geometry.

1. Plane Geometry. The first two books of Plane Geometry. Wentworth's "Plane and Solid Geometry" (last edition).
Summer, 8.00; Fall, first section, 8.00; second section, 11.00; Spring, 8.00; 7 M.

2. Plane Geometry (completed). Wentworth's "Plane and Solid Geometry" (last edition).
Summer, 8.00; Fall, Winter, 11.00; 7 M.

2½. Plane Geometry. The entire course in Plane Geometry will be taught. Gore's "Plane and Solid Geometry." Summer, 8.00; 7 M.

3. Solid Geometry. The entire course. Wentworth's "Plane and Solid Geometry." Summer, 10.00; Winter, first section 10.00; second section 11.00; Spring, 9.00; 7 M.

Botany.

1 Elementary Botany. Required for admission to all courses. The course is a summary of general botany, including hints on the broader outlines of structure, function, and classification. The learner is awakened to an interest in plant life and is taught to observe and to draw conclusions from demonstration material. Recitations, classroom demonstrations. Summer, Spring, 10.00.

Physiology.

PROFESSOR HARTIGAN.

An elementary course for first-year students. Winter, 9.00; 30 U.

Physics.

PROFESSOR HODGES.

1. Physics. An elementary course for third or fourth-year students. Recitations, supplemented by experiments and demonstrations. Prerequisite, elementary Algebra and Plane Geometry. Gage's "Elements of Physics." Summer, 10.00; Winter, Spring, 11.00; 11 S.

Physical Geography.

PROFESSOR BROWN.

An elementary course for first-year students. Fall, 9.00; 30 S.

Drawing.

MRS. HUBBARD.

1. Freehand Drawing. An elementary course in study of outline, form, and geometric design. The special aim is to train the eye and hand to delineate forms with accuracy and rapidity. Study of the geometric forms, plane and solid. Drawing the geometric solids and vases. Outline drawings of leaves and ornament from the cast; drawing of plant forms from nature. Various drawings from objects. A. K. Cross' "Freehand Drawing." Fall, 9.00; 12 S.

2. Course in Perspective. Principles of perspective studied and applied to the drawings of familiar objects and the construction of arches, buildings, etc. Continued drawing from the cast and study of design. Reference books: Trowbridge's "Perspective Drawing;" Burns' "Illustrated Drawing Book," and Minifee's "Mechanical Drawing." Winter, 9.00; 12 S.

3. **Advanced Freehand Drawing.** Study of chiaroscuro. Study of grouped solids. Drawings from the cast and various objects in light and shade. Drawings of architectural designs from model and study of Grecian orders. Study of plant life and design continued. A. K. Cross' "Light and Shade." Reference: Goodyear's "History of Art."

Spring, 9.00; 12 S.

The drawings are made with pencil, charcoal, and crayon as the design requires.

THE PREPARATORY SCHOOL AT MONTGOMERY.

JEROME HALL RAYMOND, Ph.D., President.

JOSIAH KEELY, A.B., Principal.

RUBY RAY KNIGHT, B.S., Assistant.

ALTHA WARMAN, A.B., Assistant.

General Information.

The Preparatory School of the West Virginia University at Montgomery in Fayette county was established under the provisions of an act of the Legislature passed February 16, 1895. A suitable building was erected on a beautiful site overlooking the town of Montgomery, the Kanawha river and the Chesapeake and Ohio Railroad, and the School was opened the first Monday in January, 1897.

The control of the School is vested in the Board of Regents of the West Virginia University and the State Superintendent of Free Schools. The President of the University is *ex officio* President of this School.

The course of study and the length of quarters are the same as in the Preparatory School at Morgantown (see pages 171–175).

Tuition is free to all young men and young women of West Virginia.

The citizens of Montgomery donated the spacious and beautiful grounds for the School, and they are enthusiastic workers for its welfare. The last Legislature made liberal appropriations for this School.

It is expected that all who enter the University Preparatory School at Montgomery will make every possible effort to go on from there to the University.

The School is easy of access from the counties of Fayette, Raleigh, Summers, Greenbrier, Nicholas, Clay, Kanawha, Boone, Mercer, Monroe, Wyoming, and the entire southern section of the state.

A dormitory has been erected, which furnishes excellent lodging-rooms and board. It is under the control of the Principal of the School.

The School building is well furnished, and has a good working library. The work is of the most thorough and careful character.

For information concerning the School application should be made to the Principal.

THE MILITARY DEPARTMENT.

Extract from Militia Law, State of West Virginia, 1897, sec. 100: "The Corps of Cadets of the West Virginia University shall be held as a part of the West Virginia National Guard, subject to such duty as the Commander-in-chief may order."

State cadets, to the number of 144, are appointed by the Regents of the University, and receive their uniforms, books, stationery, tuition, use of library, use of arms and equipments, and ammunition for target practice free. No charge is made for their admission. They constitute the public guard of the University and of the public property belonging thereto. In order to receive an appointment as state cadet a candidate must be between sixteen and twenty-one years of age, and must furnish evidence of good moral character. Application for a cadet appointment should be made to one of he Regents of the University. (See "Board of Regents," page 9.) State cadets' terms of enlistment is two years.

Students of the University who desire military instruction, and who are not state cadets, are allowed to join the corps as volunteer cadets. They receive no uniform from the state.

All cadets are required to wear a neat-appearing gray uniform at drill. Their uniform may be worn with propriety on all occasions.

Officers of the regular army are specially detailed by the President of the United States, one to act as Commandant of Cadets, and one to make an annual inspection of the Corps.

Special Rewards for Military Excellence.

The names of the three most distinguished cadets are published annually in the official U. S. Army Register.

Gold and silver medals are awarded annually to cadets for special excellence.

Cadets who are recommended for promotion after completing examination receive commissions as officers, signed by the Governor of the state, and such commission entitles them to rank with other officers of the National Guard of West Virginia, according to grade and date of commission.

Administration and Instruction.

For the purpose of administration and drill the Corps of Cadets is organized as an infantry battalion. There is also an artillery detach-

ment. Infractions of discipline are referred to a court-martial, consisting of cadet officers, for investigation. Cadets are divided into sections corresponding to their military proficiency and length of service. New cadets are required to enter the fourth (lowest) section, but those who have had previous military instruction may be transferred to a higher section upon passing a satisfactory examination.

The course of military instruction, practical and theoretical, is intended to fit all who graduate to perform efficiently the duties of officers in the National Guard of West Virginia. In addition to this, all cadets are taught that patriotism, punctuality, obedience, attention, alertness, and neatness are at all times expected of them. It is believed that the training a cadet receives fits him to become a good citizen as well as a good soldier. The qualities which go toward making the good officer are no less valuable, when considered in connection with the business man, professional man, or farmer. They are the qualities which ordinarily insure success in every walk of life. The excellent physical results which follow systematic military drill are well known and acknowledged by all competent judges.

Course of Instruction.

The instruction of the various sections is as follows:

Fourth Section.

Practical Instruction: (a) Infantry drills in school of the soldier, squad, company, and battalion; extended order and ceremonies. (b) Guard duty as a sentinel. (c) Physical training in the gymnasium.

Theoretical Instruction: (a) Infantry Drill Regulations, paragraphs 1 to 248, and 502 to 601, inclusive. (b) The Manual of Guard Duty except paragraphs 331 to 373, inclusive. (c) The explanation of Cadet Regulations and General Orders, and the care of arms and accoutrements.

Third Section.

Practical Instruction: (a) Infantry drills same as fourth section, except in school of soldiers. (b) Artillery dismounted battery and saber drills. (c) Guard duty as sentinels and non-commissioned officers. (d) Physical training in the gymnasium.

Theoretical Instruction: (a) Infantry Drill Regulations, paragraphs 249 to 367, 602 to 620, and 663 to 769, inclusive. (b) Reed's "Artillery Tactics," paragraphs 341 to 460, inclusive.

Second Section.

Practical Instruction: (a) Infantry drills same as third section. (b) Military signaling. (c) Small-arms firing, including the prepara-

tion of ammunition, position, and aiming drills, gallery practice and range firing. (d) Guard duty same as third section.

Theoretical Instruction: (a) Infantry Drill Regulations, paragraphs 368 to 499, and 621 to 662, inclusive. (b) Military signaling. (c) Small-arms Firing Regulations. (d) United States Army Regulations.

First Section.

Practical Instruction: (a) Infantry duties of grade attained. (b) Guard duty of grade attained. (c) Courts-martial. (d) Fencing.

Theoretical Instruction: (a) Minor tactics, including advance and rear guards, outposts, marches, field fortifications, riot duty, etc. (b) Military Law.

Military Graduates and Distinguished Cadets, Reported at Commencement, 1898.

(Those marked * are Distinguished Cadets.)

Cadet Captain Roy Reger.
Cadet First Lieutenant B. F. Laughlin, Artillery.*
Cadet First Lieutenant G. E. Gramm, Adjutant.*
Cadet Second Lieutenant W. L. Robe, Signal Officer.*
Cadet Sergeant James R. Moreland.
Cadet Sergeant Elmer F. Goodwin.
Cadet Ordnance Sergeant Elisha M. Dille.

Medals and Honors Awarded at Commencement, 1898.

Upon the decision of the Board of Judges the Colors for the ensuing year were awarded to Company "B."

The medals offered by the Board of Regents were awarded as follows:

The gold medal for drill and discipline to Cadet Corporal H. M. Gore, Company "B."

The silver medal for highest score at target practice to Cadet Sergeant C. H. Quimby, Company "A."

The silver medal for second highest score at target practice to Cadet Quartermaster Sergeant W. L. Lowe.

Marksman's buttons were also awarded to Cadet Sergeant C. H. Quimby, Jr.

The McMahon prize of twenty-five dollars in gold for the best drilled cadet, below the rank of a commissioned officer, was awarded to Cadet Corporal H. M. Gore, Company "B."

Roster of the Corps of Cadets, May 1, 1899.

Colonel Richard Ellsworth Fast, Aide-de-camp, General Staff, W. V. N. G., Commandant.

Cadet Major George E. Gramm, Commanding Infantry Battalion.

Staff.

Major James W. Hartigan, Surgeon.
Cadet Captain Benjamin F. Laughlin, Artillery Officer.
Cadet First Lieutenant Charles W. Waddell, Adjutant.
Cadet First Lieutenant Walter L. Lowe, Quartermaster.
Cadet Second Lieutenant James R. Moreland, Signal Officer.

Non-commissioned Staff.

Cadet Henry L. Lively, Sergeant-Major.
Cadet Elisha M. Dille, Ordnance Sergeant.
Cadet Harry A. St. Clair, Principal Musician.
Cadet William H. Bayles, Quartermaster Sergeant.

Company "A."

Cadet Captain Des Moines Utt, Commanding Company.
Cadet First Lieutenant Paul E. Green.
Cadet Second Lieutenant Hugo Frankenberger.

Sergeants.

Cadet Quimby, Charles H., First Sergeant.
Cadet Roller, Benjamin R.
Cadet Hutchinson, Frank D.
Cadet Rogers, Ralph.
Cadet Willis, John A.

Corporals.

Cadet Bailey, Bruce.
Cadet Davis, Thomas J.
Cadet Wagner, Clinton B.

Privates.

Cadet Alexander, Henry C.
Cadet Bartlett, General T.
Cadet Brown, Robert M.
Cadet Boyd, Robert H.
Cadet Burgess, Muss S.
Cadet Campbell, George H.
Cadet Carrell, Harry D.
Cadet Dawson, Daniel.
Cadet Davis, Warren M.
Cadet Dent, Herbert W.
Cadet Early, Forrest D.
Cadet Hewitt, Frank R.
Cadet Lynch, Charles A.
Cadet Maxwell, Earle C.
Cadet McGlumphy, Charles B.
Cadet McDonald, James W.
Cadet Moore, John W.
Cadet Muldoon, Harry R.
Cadet Nestor, Ira F.
Cadet Parsons, William E.
Cadet Radcliffe, Count L.
Cadet Robinson, Carroll.
Cadet Ross, Justus F.
Cadet Schloss, Sidney.
Cadet Stalnaker, Edward L.
Cadet Tabler, Ernest C.

Privates—Continued.

Cadet Taylor, Robert K.
Cadet Stone, James F.
Cadet Stewart, Robert H.
Cadet Watson, Clyde E.
Cadet Willis, Arthur B.

Company "B."

Cadet Captain Edward B. Carskadon, Commanding Company.
Cadet First Lieutenant Buckner F. Scott.
Cadet Second Lieutenant Howard M. Gore.

Sergeants.

Cadet Steele, Harry G., First Sergeant.
Cadet Roller, Robert D.
Cadet Butler, Seaton G.
Cadet Thompson, David C.
Cadet Dodson, Raymond.

Corporals.

Cadet Hawse, Allen L.
Cadet Corbin, Frank P.
Cadet Lewis, John C.
Cadet Dobbs, Lee F.

Musicians.

Cadet Hill, Lucian A.
Cadet Cooke, Jean V.
Cadet Moore, Solomon G.

Privates.

Cadet Auville, Jesse H.
Cadet Barnes, Fred. N.
Cadet Blackwood, Kenny C.
Cadet Bowman, Thomas B.
Cadet Cole, Clyde A.
Cadet Derbyshire, Charles E.
Cadet Doolittle, George L.
Cadet Duval, Harden L.
Cadet Hervey, Henry J.
Cadet Hughes, Rector R.
Cadet Johnson, Walter G.
Cadet Lawrence, Benjamin F.
Cadet Markley, George L.
Cadet Meyers, Walter H.
Cadet Parsons, Dixon W.
Cadet Patton, Benjamin F.
Cadet Plumley, Charles H.
Cadet Richards, Edgar W.
Cadet Robinson, Delbert T.
Cadet Rose, Herschel H.
Cadet Ross, Charles F.
Cadet Spears, Samuel T.
Cadet Smith, William W.
Cadet Thurmond, Walter R.
Cadet Trapnell, Richard W.
Cadet Wilson, John W.
Cadet Watkins, William M.
Cadet Zeck, Fred V.

Company "C."

Cadet Captain Benjamin F. Laughlin (Artillery Officer), Commanding Company.

Cadet First Lieutenant Wilbur L. Robe.

Cadet Second Lieutenant Lathrop R. Charter, Jr.

Sergeants.

Cadet Smith, Earle H., First Sergeant.

Cadet Alexander, William F.
Cadet Largent, Robert J.
Cadet Poe, Clarence.
Cadet Lang, Thomas.

Corporals.

Cadet Bayles, George H.
Cadet Bush, Ira B.
Cadet Cole, Emmett L.

Musician.

Cadet Capito, Henry.

Privates.

Cadet Alexander, Clyde.
Cadet Blair, Smith.
Cadet Casey, Clyde J.
Cadet Chancellor, Camden.
Cadet Cummins, John W.
Cadet Davis, William G.
Cadet Duty, Price.
Cadet Forquer, James C. M.
Cadet Jones, Elbert.
Cadet Kessell, James E.
Cadet Killingsworth, Richard H.
Cadet Lucas, Arthur M.
Cadet Meyers, Howard M.
Cadet Mayer, John H.
Cadet McMurtrie, Robert W.
Cadet Miller, Gilbert B.
Cadet McCutcheon, Alvaro B.
Cadet McGlumphy, Walter A.
Cadet Naret, Joseph Q.
Cadet Neely, Mansfield M.
Cadet Rogers, Harold F.
Cadet Scherr, Arnold A.
Cadet Shaw, William R.
Cadet Sutton, Felix O.
Cadet Thompson, Lewis C.
Cadet Wiles, George R. C.

Cadets Unassigned.

(On Furlough.)

Cadet Sergeant Holy, George H. F.
Cadet Sergeant Gibson, William H.
Cadet Private Heermans, Charles R.
Cadet Private Hoover, Jay F.
Cadet Private Moore, Harold C.
Cadet Private Rice, Percy D.
Cadet Private Sutton, Olney O.
Cadet Private Thornbury, Joseph W.

Recapitulation.

Cadet Commissioned Officers	13
Cadet Non-commissioned Officers	33
Cadet Musicians	4
Cadet Privates	92
Whole number of cadets on roster May 1, 1899	142
Volunteer Cadet	1
State Cadets	141

DEPARTMENT OF PHYSICAL TRAINING.

BENJAMIN GRAEFF PRINTZ, Director of the Gymnasium, and Instructor in Physical Training.

The Gymnasium.

The Gymnasium occupies the entire first floor of Commencement Hall. It is large and well ventilated, has good light, is properly heated in winter, and is equipped with the most modern and approved apparatus, and with plunge and shower baths. It is open for the use of students every day except Sunday. Certain hours are reserved for lady students. Separate classes in Gymnastics are formed for men and women, and in addition to these classes private work is arranged for individual students. All students are encouraged to utilize the Gymnasium in every possible way.

Course in Physical Training.

The regular course in Physical Training occupies two years, and is required of all young men in the Preparatory School, of all young men in the College of Arts and Sciences who have not had the course in the Preparatory School, and of all members of the Cadet Corps. Students may be excused by their class officers for sufficient reasons.

The instruction is by lectures and class exercises. The time devoted to it is three hours per week throughout the two years. The class for men meets Tuesdays and Thursdays at 4 P. M., and Saturdays at 9 A. M. For women students the work in Physical Training is elective. The class for women meets Mondays, Wednesdays and Fridays at 4 P. M.

First Year.

The fall quarter is given to light gymnastics. The students are drilled to music in the simple motions of stepping, charging, lunging, hopping, running, etc. The winter is given to other free gymnastic movements, including the various head, neck, eye, chest, waist and extremity exercises, and basket ball work. During the spring quarter the time is given to instruction in calisthenics, figure marching, running and light dumb-bell exercises.

Second Year.

During the fall quarter the light dumb-bell exercises are continued with exercises in vaulting, jumping, and club swinging. The winter quarter is devoted to club swinging, chest-machine work, ladder and

bar-bell exercises, and the spring quarter to horizontal and parallel bar work, fencing, boxing, and ring exercises.

Credit for Work in Physical Training.

College students who take the work in Physical Training, whether as required or elective work, will receive for each quarter's work in Physical Training credit for one-third of a course toward any degree in the College of Arts and Sciences, or in the College of Agriculture.

INSTRUCTION BY CORRESPONDENCE.

The University is now giving instruction by correspondence to students at a distance.

It should be clearly understood that instruction by correspondence is by no means regarded as the equivalent of resident study. Experience has shown, however, that earnest students may do good work at a distance from the University when guided by competent instruction by correspondence. There are in every locality teachers, ministers, and men and women of various vocations, who are carrying on the study of certain subjects alone, and who would be glad to avail themselves of the guidance of a University instructor. There are others who would take up and prosecute some line of study if they could have competent guidance, but who do not feel able to carry on any study without assistance. Some are looking forward to a college course, and would like to prepare themselves for admission; others would like to do a part of the college work in absence, thereby shortening the time of residence required for a degree. For these various classes of persons and all others who desire to receive guidance in some line of study by corresdence, whether with a view to receiving University credit or not, the West Virginia University offers instruction by correspondence according to the following plan:

Methods of Instruction by Correspondence.

The courses offered by correspondence are arranged to cover the same ground as the corresponding courses in the University proper. The University year is divided into four quarters. The average requirement for students doing full work at the University is fifteen hours of recitation weekly, i. e., the equivalent of three full courses each quarter. A full course consists of five recitations a week for one quarter (twelve weeks). Most courses in the University are full courses, though some are half-courses, and a very few are one-third courses. Unless otherwise noted, all courses offered by correspondence are full courses, each one being equivalent to a study in the University proper running through one quarter, the class meeting five times a week.

Instruction by correspondence is carried on by a series of printed instruction and question sheets. In the case of a full course, the entire course consists of twenty of these instruction sheets. Each sheet assigns the student certain work, gives suggestions and explanations and a series of questions, the answers to which the student is to write out after having performed the work assigned. The answers to these questions the student is to mail to the University with any questions or difficulties which have arisen in his mind. As soon as possible after

this recitation paper has been received at the University it will be returned with errors corrected and whatever suggestions the instructor may think necessary.

Only a few of the courses offered at the University are as yet offered by correspondence. Below is given a list of courses which may be taken by correspondence; of these courses not more than two may be taken by one student at the same time. The student must complete any course chosen within a year from the time he begins it; he may complete it as soon after beginning it as he is able.

Students may begin any course at any time.

If a period of sixty days elapses without any report from a correspondence student he will be deemed to have dropped the course, and he will forfeit his right to further instruction.

University Credit for Work Done by Correspondence.

1. When a student has completed any course of study by correspondence satisfactorily to the instructor, he will be given a certificate for the work done.

2. If he desires his work to be credited on the books of the University towards a degree, he must pass a special examination at the University on the work done by correspondence for which he wishes credit. In rare and exceptional cases this special examination may be conducted at the student's home by some one from the University or authorized by the University.

3. For the Bachelor's degree not more than one-half the required work may be performed by correspondence.

4. For the Master's degree not more than one-third of the required work may be performed by correspondence.

The University grants no degrees for work done entirely by correspondence or in absence.

For the degrees of B.A., B.S., Ph.B., and B.L., at least one year of resident study is required.

For the degrees of M.A., M.S., Ph.M., and M.L., at least two quarters of resident study is required, after receiving the Bachelor's degree.

Expenses.

The instruction fees are as follows:

For a full course	$5.00
For a half course	3.00
For a one-third course	2.00

These fees include the payment for printed lesson sheets, but the student is required to enclose postage with each recitation paper for its return when corrected by the instructor.

All fees are payable in advance.

Students are not required to pass any examination before undertaking any of these courses by correspondence; they are simply required to fill out a blank which will be sent on application. After examining this blank when it has been filled out and returned to the University, the instructor will decide whether the student is able to carry the course selected.

Courses of Instruction by Correspondence.

All courses are full courses except in Law. In each department of study the courses offered are separately numbered, and the fee for each course numbered is $5.00.

Philosophy.

PROFESSOR REYNOLDS.

1. Comparative Religion.
2. Ethics.
3. History of Philosophy.
4. Psychology.

Pedagogy.

PROFESSOR MILLER.

1. History of Education.
2. Methods and Principles of Instruction.
3. School Management and School Supervision.
4. Educational Psychology.

Sociology.

PRESIDENT RAYMOND.

1. Anthropology.
2. Ethnology.
3. Elements of Sociology.
4. Social Philosophy.

Economics.

PRESIDENT RAYMOND.

1. Historical Introduction to Economics.
2. The Principles of Economics.
3. History of Economic Thought.

Political Science.

PROFESSOR FAST.

1. Local Government.
2. Theory of Political Science.

European History.

PROFESSOR SANDERS.

1. Oriental and Greek History.
2. Rome and the Roman Empire.
3. Mediæval History.
4. English History to the Accession of the Tudors.
5. English History from the Accession of the Tudors to the Present Time.
6. Modern History.
7. The History of Our Own Times—the Last Century and a Half.

American History.

PROFESSOR FAST.

1. American History to the Revolution.
2. History of the United States.

Greek.

PROFESSOR WOOLERY.

1. First Greek Book (White), Lessons I-XL.
2. First Greek Book, completed.
3. Xenophon's Anabasis (Goodwin), Book I.
4. Xenophon's Anabasis, Books II-III, and Prose Composition (Jones), Lessons 1-20.
5. Lycias' Orations (Stevens), and Prose Composition, completed.
6. Homer's Iliad and Homeric Verse (Seymore), Books I, II, and III. Myths of Greece and Rome (Guerber).
7. Plato's Apology (Dyer). A Study of Greek Philosophy (Mitchell).
8. Demosthenes' Philippics I and II. Oratory by Cicero.
9. Sophocles' Antigone. Ancient Greek Literature (Murray).
10. I and II Corinthians (Westcott and Hort).
11. Acts of the Apostles, Chapters I-XIV.
12. Acts of the Apostles, Chapters XV-XXVIII.

NOTE.—The English works assigned on Mythology, Philosophy, Oratory, and Literature are to be read only. Collateral reading will be assigned also in connection with a critical study of the New Testament Greek.

Latin.

PROFESSOR DOUTHAT.

1. Latin for Beginners; first quarter.
2. Latin for Beginners; second quarter.

3. Latin for Beginners; third quarter.
4. Cæsar: Gallic War—Selections.
5. Cicero: Selected Orations.
6. Virgil, Æneid—Selections.
7. Livy—Selections.
8. Horace—Selections.

Romance Languages and Literature.

PROFESSOR MCKENZIE.

1. French for Beginners.
2. Intermediate French.
3. Advanced French.
4. Italian.
5. Spanish.

German.

PROFESSOR TRUSCOTT.

1. Intermediate Course in German.
2. Elementary Course in Composition.
3. German Prose.
4. Advanced Course in Composition.
5. Survey of German Literature.
6. Schiller.
7. Heine.

Rhetoric.

PROFESSOR PATTERSON.

1. Rhetoric for Beginners.
2. Intermediate Rhetoric.
3. Advanced Rhetoric.

English Literature.

PROFESSOR ARMSTRONG.

1. Introduction to English Literature.
2. General Survey of English Literature: First Period.
3. General Survey of English Literature: Second Period.
4. The American Poets.
5. The English Essayists: First Period.
6. The English Essayists: Second Period.
7. The English Novelists.
8. Shakespeare.
9. Browning.

Mathematics.

PROFESSOR STEWART.

1. Teachers' Course in Algebra.
2. Plane Geometry.
3. Plane Trigonometry.

Physics.

PROFESSOR HODGES.

1. Elementary Physics.
2. Elementary Laboratory Course for Teachers in secondary schools, and for others having access to simple apparatus.

Chemistry.

PROFESSOR WHITEHILL.

1. Experimental course designed as an introduction to the study of Chemistry.

Geology.

PROFESSOR BROWN.

1. Economic Geology.

Physiology.

DR. HARTIGAN.

1. Physiology.

Botany.

DR. HARTIGAN.

1. Field Botany.

Mechanical Engineering.

PROFESSOR ALDRICH AND MR. JONES.

GROUP I. Mechanical Construction,—principles, appliances, methods and economics of workshop production:

1. Pattern-making, moulding and casting.
2. Forging and toolsmithing.
3. Machine shop practice.
4. Superintendence and Management.
   (Development, organization, supervision and economics of modern manufacturing work.)

GROUP II. Engineering Design,—principles, methods and economics.

1. Iron and steel in mechanical construction.
2. Mechanism and designing mechanical movements.
3. Mechanical Drawing:
   (a) Elementary and general course.
   (b) Machine and Constructive Drawing.
4. Machine Design:
   (a) Elementary and general course.
   (b) Engineering and Constructive Design.

GROUP III. Steam Engineering and Motive Power Machinery.

1. Steam Engineering:
   (a) Elementary and general course.
   (Engines, boilers, pumps, injectors, piping.)
   (b) Indicator Practice and Valve Gears and Setting.
2. Compressed Air Machinery and Transmission.
3. Refrigerating Machinery and Ice Plants.
4. Gas Engines, producers, storage and distribution.
5. Heating and Ventilation of Buildings.
6. Locomotive Engineering.

NOTE.—Students in the various lines of mechanical engineering work are recommended to make a combination of two or more of the above special courses, as may be best adapted to meet their particular requirements.

Electrical Engineering.

PROFESSOR HODGES, PROFESSOR ALDRICH, AND MR. JONES.

1. Electricity and Magnetism:
   (a) Elementary and general course.
   (b) Regular course for Engineers.
2. Electrodynamic Machinery:
   (a) Direct Current Dynamos and Motors.
   (b) Alternating Current Dynamos, Motors and Transformers..
3. Electrical Wiring and Distribution for Direct and Alternating Currents.
4. Electric Street Railways, Systems and Working.
5. Electric Coal Mining; cutting and haulage, by electricity.
6. Electric Lighting Systems,—arc and incandescent.
7. Telephone Systems.
8. Electric Power Transmission, by direct and alternating currents.
9. Electric Light Plants; Central Station working.
   (Development, organization, management and economics of electric power production.)

NOTE.—Students in the various lines of electrical engineering work are recommended to make a combination of two or more of the above courses, as may be best adapted to meet their particular requirements.

Civil Engineering.

PROFESSOR JOHNSTON.

1. Beginners' Course in Land Surveying.
2. Coal Mining in West Virginia.
3. Elementary Mechanical Drawing.
4. Advanced Mechanical Drawing.

Mechanics and Applied Mathematics.

PROFESSOR EMORY.

1. Elementary Mechanics.
2. Theoretical Mechanics, Course 1.
3. Theoretical Mechanics, Course 2.
4. Applied Mechanics.
5. Theoretical Hydraulics.
6. Power, Course 1.
7. Power, Course 2.
8. Power, Course 3.
9. Engineering Calculus.

Agriculture.

PROFESSOR ATKESON.

1. The Elements of Agriculture.
2. Domestic Animals.
3. Science of Agriculture.
4. Rural Economics.

NOTE.—An Agricultural Course in Home Reading will be given free, for which no credit will be given on a University course, but a certificate will be given on its completion, for which a small fee will be charged to pay cost of printing. A special circular regarding this Home Reading Course may be had upon application. (See page 137).

Horticulture.

PROFESSOR CORBETT.

1. The Elements of Horticulture.
2. Science of Horticulture.
3. Forestry.

Entomology.

DR. HOPKINS.

1. Entomology for Beginners.

Economic Botany.

PROFESSOR RUMSEY.

1. Economic Botany.

Commercial.

MR. WILLIS.

1. Stenography.
2. Bookkeeping.

Law.

The College of Law offers instruction by correspondence in any of the subjects taught in the Junior year of the two-year course. These subjects are:

Blac stone (3 courses).
Contracts (½ course).
Insurance (½ course).
Criminal Law (½ course).
Negotiable Paper (⅓ course).
Suretyship and Guaranty (⅓ course).
Bailments (⅓ course).
Criminal Procedure (1 course).
International Law (1 course).
Evidence (1 course).
Agency (½ course).

The following text-books, with prices annexed, are used:

Blackstone's Commentaries, Lewis' Edition ($9.00).
Clark on Contracts ($3.50).
Elliott on Insurance ($3.50).
Clark on Criminal Law ($3.50).
Clark on Criminal Procedure ($3.50).
Norton on Negotiable Paper ($3.50).
Hale on Bailments ($3.50).
Glenn's International Law ($3.50).
Underhill on Evidence ($5.00).
Huffcut on Agency ($2.50).

These books may be had at the West Virginia University by sending the price to Professor William P. Willey and the name of the nearest express office.

Cases in the various state and federal reports are frequently cited for the purpose of illustrating and amplifying principles. Students who have access to these reports will find it helpful to study the cases cited.

Summary of Courses Offered in the College of Arts and Sciences and in the Preparatory School.

1899-1900

8.00 A. M.

College of Arts and Sciences.

SUMMER.	FALL.	WINTER.	SPRING.
Pedagogy 9 and 10 Phillips	Psychology 1 Reynolds	Logic 2 Reynolds	Ethics 3 Reynolds
	Pedagogy 6 Miller		Pedagogy 4 Miller
Sociology 1 Raymond	Sociology 1 Raymond	Sociology 2 Raymond	Sociology 3 Raymond
Modern Hist. Daniels	Greek 5 Woolery	Greek 6 Woolery	Greek 1 Woolery
Latin 9 Douthat	Latin 10 Douthat	Latin 11 Douthat	Latin 12 Douthat
Spanish 1 Ballard			Rhetoric 1 Smith
German 4 Truscott	German 4 Truscott	German 5 Truscott	German 6 Truscott
English Lit. 2 Armstrong	English 1 Armstrong	English Lit. 3 Armstrong	Amer. Lit. 4 Armstrong
Anal. Geometry Thompson	Anal. Geometry Stewart	Diff. Calculus Stewart	Int. Calculus Stewart
Geology 4 Brown		Mineralogy Brown	Physics 10 Hodges
Anatomy Hartigan	Struc. Botany Hartigan	Zoology Hartigan	Adv. Zoology Hartigan

9.00 A. M.

College of Arts and Sciences.

SUMMER.	FALL.	WINTER.	SPRING.
	Pedagogy 4 Miller	Pedagogy 5 Miller	Pedagogy 5 Miller
Economics 2 Raymond	Economics 1 Raymond	Economics 2 Raymond	Economics 3 Raymond
Amer. Hist. 2 Daniels	Amer. Hist. 3 Fast	Amer. Hist. 4 Fast	Amer. Hist. 5 Fast

College of Arts and Sciences—Continued.

SUMMER.	FALL.	WINTER.	SPRING.
Latin 5 Douthat	Latin 6 Douthat	Latin 7 Douthat	Latin 8 Douthat
French 2 Ballard	Spanish 1 Ballard	Italian 1 McKenzie	French 1 Ballard
German 1 Truscott	German 1 Truscott	Spanish 2 Ballard	Italian 2 McKenzie
		German 2 Truscott	Spanish 3 McKenzie
Bible Lit. 7 Armstrong	English Lit. 5 Armstrong	English Lit. 6 Armstrong	German 3 Truscott
	Elocution 5 Patterson	Elocution 6 Patterson	Bible Lit. 7 Armstrong
Astronomy Thompson	Trigonometry Stewart	Algebra 1 Stewart	Solid Geom. Stewart
Physics 2 Hodges		Astronomy Stewart	
		Physics 6 and 7 Hodges	
Chemistry 2 and 3 Whitehill	Chemistry 1 Whitehill	Chemistry 2 and 3 Whitehill	Chemistry 4 Whitehill
Mineralogy Brown	Mineralogy Brown	Adv. Mineralogy Brown	Geology 4 Brown
Zoology Hartigan	Drawing 1 Hubbard	Drawing 2 Hubbard	Drawing 3 Hubbard

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10.00 A. M.

College of Arts and Sciences.

SUMMER.	FALL.	WINTER.	SPRING.
Psychology 10 Phillips	Psychology 4 Reynolds	Comp. Religion 5 Reynolds	Comp. Ethics 6 Reynolds
	Pedagogy 1 Miller	Pedagogy 2 Miller	Pedagogy 3 Miller
Economics 5 Hamilton	Economics 4 Morris	Economics 5 Morris	Economics 6 Morris
	Pol. Science 1 Fast	Pol. Science 2 Fast	Pol. Science 3 Fast
Greek 6 Woolery	Greek 2 Woolery	Greek 3 Woolery	Greek 4 Woolery
Latin 13 Douthat	Latin 14 Douthat	Latin 15 Douthat	Latin 16 Douthat
French 4 Ballard	French 4 Ballard	French 5 McKenzie	French 6 McKenzie
German 7 Truscott	German 7 Truscott	German 8 Truscott	German 9 Truscott
English Lit. 9 Armstrong	English Lit. 8 Armstrong	English Lit. 9 Armstrong	English Lit. 10 Armstrong
	Rhetoric 4 Patterson	Rhetoric 5 Patterson	Elocution 4 Patterson

College of Arts and Sciences—Continued.

SUMMER.	FALL.	WINTER.	SPRING.
Algebra 1 Thompson	Algebra 1 Stewart	Solid Geom. Stewart	Trigonometry Stewart
	Physics 2 Hodges	Physics 3 Hodges	Physics 4 Hodges
Chemistry 1 Whitehill	Chemistry 2 and 3 Whitehill		Chemistry 1 Whitehill
Geology 3 Brown	Gen. Biology Hartigan	Des. Botany Hartigan	Geology 2 Brown
Field Botany Hartigan			Field Botany Hartigan
	Drawing 4 Mrs. Hubbard	Drawing 5 Hubbard	Drawing 6 Hubbard

11.00 A. M.

College of Arts and Sciences.

SUMMER.	FALL.	WINTER.	SPRING.
Philosophy 11 Phillips	Grecian Hist. Sanders	Roman Hist. 4 Sanders	Med. Hist. 5 Sanders
Pedagogy 11 Phillips	Greek 7 Woolery	Greek 8 Woolery	Greek 9 Woolery
Economics 4 Hamilton	Latin 2 Douthat	Latin 3 Douthat	Latin 4 Douthat
Roman Hist. 15 Daniels			
Latin 1 Douthat			
French 1 Ballard	French 1 Ballard	French 2 McKenzie	French 3 McKenzie
Anglo-Saxon Truscott	English Lit. 2 Holden		English Lit. 2 Holden
	German 1 Truscott	German 2 Truscott	German 3 Truscott
Amer. Lit. 4 Armstrong	English Lit. 11 Armstrong		English Lit. 12 Armstrong
Rhetoric 1 Smith	Rhetoric 1 Smith	Rhetoric 2 Patterson	Rhetoric 3 Patterson
Trigonometry Thompson	Rhetoric 6 Patterson	Solid Geom. Stewart	
Geology 5 Brown	Geology 4 Brown	Paleontology Brown	Econ. Geology Brown
Physiology Hartigan	Anatomy Hartigan	Adv. Anatomy Hartigan	Physiology Hartigan
	Am. Diplomacy Fast		

12.00 M.

College of Arts and Sciences.

SUMMER.	FALL.	WINTER.	SPRING.
	Anc. Philosophy 7 Reynolds	Med. Philosophy 8 Reynolds	Mod. Philosophy 9 Reynolds
Economics 6 Hamilton	Eng. Hist. 7 Sanders	Eng. Hist. 8 Sanders	Mod. Hist. 13 Sanders
	French 1 Ballard	French 2 McKenzie	French 3 McKenzie
	German 1 Porterfield	German 1 Porterfield	German 2 Porterfield
Elocution 1 Smith	Elocution 1 Patterson	Elocution 2 Patterson	Elocution 3 Patterson
Solid Geom. Barton			

2.00 P. M.

College of Arts and Sciences.

SUMMER.	FALL.	WINTER.	SPRING.
			Ped. 7 and 8 Miller

3.00 P. M.

College of Arts and Sciences.

SUMMER.	FALL.	WINTER	SPRING.
	Pedagogy 20 Miller	Pedagogy 20 Miller	Pedagogy 20 Miller
	Algebra 1 Stewart		Trigonometry Stewart

8.00 A. M.

Preparatory.

SUMMER.	FALL.	WINTER.	SPRING.
	English 1 Friend	English 2 Friend	English 3 Friend
Latin 2 Hare	Latin 1 Hare	Latin 1 Hare	
	Latin 2 Bondurant	Latin 2 Bondurant	Latin 3 Hare
	Latin 3 Douthat		Latin 4 Bondurant
Greek 1 Woolery	Greek 5 Woolery	Greek 6 Woolery	Greek 1 Ohern
			Greek 7 Woolery

Preparatory—Continued.

SUMMER.	FALL.	WINTER.	SPRING.
German 4 Truscott	German 4 Truscott	German 5 Truscott	German 6 Truscott
	Algebra 3 Johnson	Algebra 4 Barton	
Geometry 1 and 2 Barton	Geometry 1 Barton		

9.00 A. M.

Preparatory.

SUMMER.	FALL.	WINTER.	SPRING.
English 4 Smith	English 1 Friend	English 2 Friend	English 3 Friend
		Latin 3 Hare	Latin 1 Hare
		Latin 4 Bondurant	Latin 2 Bondurant
Latin 7 Hare.	Latin 7 Douthat	Latin 8 Douthat	Latin 9 Douthat
Greek 2 Woolery	Greek 1 Ohern	Greek 2 Ohern	Greek 3 Ohern
French 2 Ballard			French 1 Ballard
German 1 Truscott	German 1 Truscott	German 2 Truscott	German 3 Truscott
Arithmetic Willis	Arithmetic Willis	Arithmetic Willis	Arithmetic Willis
		Algebra 1 Barton	Algebra 2 Johnson
Algebra 4 Barton	Algebra 4 Barton		Algebra 4 Barton
	Phys. Geography Brown		
		Physiology Hartigan	
	Drawing 1 Hubbard	Drawing 2 Hubbard	Drawing 3 Hubbard

10.00 A. M.

Preparatory.

SUMMER.	FALL.	WINTER.	SPRING.
English 7 Smith	English 4 Friend	English 5 Friend	English 6 Friend
	English 7 Miller	English 8 Miller	English 9 Miller
Latin 4 Hare	Latin 4 Hare	Latin 5 Hare	Latin 6 Hare
	Greek 1 Ohern	Greek 2 Ohern	Greek 3 Ohern

Preparatory—Continued.

SUMMER.	FALL.	WINTER.	SPRING.
French 4 Ballard	French 4 Ballard	French 5 McKenzie	French 6 McKenzie
	Anc. History Sanders	Modern Hist. Sanders	
	Algebra 1 Barton		
Algebra 2 Barton	Algebra 2 Johnson	Algebra Johnson	Algebra 3 Barton
Botany Hartigan		Algebra 3 Barton	Botany Hartigan
Physics Hodges			

11.00 A. M.

Preparatory.

SUMMER.	FALL.	WINTER.	SPRING.
	English 4 Friend	English 5 Friend	English 6 Friend
Latin 1 Hare	Latin 1 Hare	Latin 2 Hare	Latin 3 Hare
Greek 4 Woolery	Greek 3 Ohern	Greek 5 Ohern	Greek 6 Ohern
French 1 Ballard	French 1 Ballard	French 2 McKenzie	French 3 McKenzie
	German 1 Truscott	German 2 Truscott	German 3 Truscott
Algebra 1 Barton			Algebra 1 Barton
	Geometry 1 Barton	Geometry 2 Barton	
	Geometry 2 Barton		
		Physics Hodges	Physics Hodges

12.00 M.

Preparatory.

SUMMER.	FALL.	WINTER.	SPRING.
	Greek 2 Ohern	Greek 3 Ohern	Greek 5 Ohern
	French 1 Ballard	French 2 McKenzie	French 3 McKenzie
	German 1 Porterfield	German 1 Porterfield	German 2 Porterfield

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2.00 P. M.

Preparatory.

SUMMER.	FALL.	WINTER.	SPRING.
Latin 3 Hare			

STUDENTS.

Fellows.

(1898-9.)

Friend, Lloyd Lowndes, Morgantown.
A.B., West Virginia University, 1897.
Fellow in English.

Ohern, Daniel Webster, Des Moines, Iowa.
A.B., Drake University, 1898.
Fellow in Greek.

Post, Arthur Lee, Good Hope.
A.B., West Virginia University, 1898.
Fellow in Chemistry.

Other Graduate Students.

Arnett, Lonna Dennis, Opekiska.
B.S., West Virginia University, 1897.
General Biology, Histology.

Barton, Daniel Jenifer, Morgantown.
A.B., West Virginia University, 1898.
Latin.

Bondurant, Bernard Camillus, Bethany.
A.B., Hampden-Sidney College, 1891; A.M., Bethany College, 1898.
Greek, Greek History, French.

Brand, Harvey, Morgantown.
A.B., West Virginia University, 1890.
Pedagogy, History.

*Deavor, William Tecumseh Sherman, Annapolis, Md.
B.S., Dickinson Seminary, 1888; Ph.D., Allegheny College, 1892.
Sociology, Economics, Comparative Religion.

Emory, Frederick Lincoln, Morgantown.
B.S., Worcester Polytechnic Institute, 1887; M.M.E., Cornell University, 1896.
Sanitary Engineering, Structural Design.

Fast, Richard Ellsworth, Morgantown.
LL.B., West Virginia University, 1886; Ph.B., *ibid.*, 1898; A.M., Bethany College, 1898.
Sociology.

Gorman, Michael Eugene, Benwood.
A.B., West Virginia University, 1895.
Economics, Sociology, Comparative Religion.

*Died November 2, 1898.

Green, Henry Sherwood, Bethany.
A.B., Yale University, 1879.
Sociology, Economics.

Hackney, Lilian May, Morgantown.
A.B., West Virginia University, 1893.
Sociology, Physics.

Hare, Alfred Jarrett, Morgantown.
A.B., West Virginia University, 1889.
Latin.

Henderson, Joseph Lindsay, Tyler, Texas.
A.B., West Virginia University, 1894.
Latin, Chemistry.

Jaco, Lin Milton, Morgantown.
A.B., West Virginia University, 1892; LL.B., *ibid.*, 1894.
Sociology, Economics, Comparative Religion.

Johnson, Thomas Carskadon, Morgantown.
B.S.Agr., West Virginia University, 1896.
Economics, Histology, General Biology.

Knutti, John Gottlieb, Fairmont.
A.B., West Virginia University, 1897.
Sociology, French, Physics.

Kunkel, Josephine Margaret, Morgantown.
A.B., West Virginia University, 1897.
Physics.

Morris, Russell Love, Morgantown.
B.S.C.E., West Virginia University, 1895; C.E., *ibid.*, 1898.
Agriculture, Horticulture.

Moninger, Herbert Henry, Bethany.
A.B., Bethany College, 1898.
Sociology, Economics, German.

Nelson, J. Frank, Capon Bridge.
B.S., West Virginia University, 1898.
Biology, English Literature.

Nuzum, John, Leroy.
A.B., West Virginia University, 1894.
English Literature, Physics, Economics.

Parker, Adella May, Seattle, Washington.
A.B., University of Washington, 1893.
Economics, Sociology.

Reynolds, Ethel Toy, Morgantown.
B.S., West Virginia University, 1897.
Latin, Greek.

Smith, Simeon Conant, Jr., Provincetown, Mass.
A.B., Tuft's College, 1898.
Elocution, English.

Standiford, William Russell, Elm Grove.
A.B., West Virginia University, 1897.
Pedagogy, English Literature, International Law.

South, Winifred Orienta, Morgantown.
A.B., West Virginia University, 1897; A.M., *ibid.*, 1898.
History, English Literature.

Swisher, Howard Llewellyn, Morgantown.
A.B., West Virginia University, 1897.
Spanish.

White, Orilas Grant, Bethany.
A.B., Bethany College, 1898.
Sociology, Economics, Comparative Religion.

White, Anna Bancroft, Morgantown.
B.S., West Virginia University, 1895.
Economics, Library Science.

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The College of Arts and Sciences.

Seniors.

	Course.	
Barbe, Clyde Davis	A.B.	Morgantown.
Beltzhoover, George Morris, Jr.	A.B.	Shepherdstown.
Berkshire, Clarence Emmet	A.B.	Maidsville.
Carskadon, Edward Blackburn	A.B.L.	Headsville.
*Clemans, Willie Grant	A.B.L.	Benson.
Dent, Carrie Louise	Ph.B.	Grafton.
Eddy, Alexander Lough	A.B.	Cross Roads.
Hauber, Francis Aloysious	A.B.	St. Mary's, Pa.
B.S., Villanova College, 1897.		
Hoff, Silas Marion	Ph.B.	Auburn.
Holden, Charles Fenton	Ph.B.	Clarksburg.
Horn, James William	A.B.	Capon Bridge.
Hunter, Paul Stuart	A.B.	Pittsburg, Pa.
Krebs, George Robert	B.S.	New Martinsville.
Laughlin, Benjamin Franklin	A.B.	Grafton.
Law, James Edman	A.B.L.	Salem.
Lowe, Scott Cephas	Ph.B.	Eldora.
Morris, Robert	A.B.	Harrisville.
A.B., University of Nashville, 1896.		
Pollock, William McCally	A.B.	Morgantown.
Porterfield, Allen Wilson	A.B.	Bedington.
Romine, Alexander Pickens	A.B.	Johnstown.
Sample, Charles Washington	A.B.L.	Randall.
Sawtell, Archie LeRoy	A.B.L.	Wheeling.

*Died January 28, 1899.

Seniors—Continued.

	Course.	
Skinner, James Marshall	Ph.B.	Sistersville.
Smith, Lee	A.B.	Uniontown, Pa.
South, Walter Haines	Ph.B.	Morgantown.
Trembly, Charles Edward	A.B.	Terra Alta.
White, Henry Middleton	A.B.L.	Camden.
Whitham, William Henry	B.S.	Morgantown.
Wood, Lucy Berkshire	A.B.	Morgantown.

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Juniors.

Barrickman, Van Ara	A.B.L.	Morgantown.
Barnes, Isaac Allen	Ph.B.	Morgantown.
Brahm, Grace Lunsford	A.B.	Fairmont.
Browning, Bertha Cleland	A.B.	Wellsburg.
Bush, Ira Benton	A.B.	Auburn.
Butcher, Willa Hart	A.B.	Fairmont.
Conley, George Washington	A.B.	Craigmoor.
Crossland, Howard Ralph	B.S.	New Haven, Pa.
Ebers, Charles Henry	Ph.B.	Benwood.
Frank, Harrison Jules Louis	Ph.B.	Wheeling.
Frankenberger, Hugo	A.B.	Charleston.
Garrison, James A	Ph.B.	Jollytown, Pa.
Gore, Howard Mason	A.B.	Clarksburg.
Hall, Leonard S	A.B.	New Martinsville.
Hott, David, Jr	A.B.	Martinsburg.
Hughes, Alvaroe Glen	A.B.	Ravenswood.
Janes, William	Ph.B.	Philippi.
John, William Scott	A.B.	Rosedale, Pa.
Jones, Hannah Louise	B.L.	Morgantown.
Lemen, David	A.B.	Shepherdstown.
Love, John Andrew Collins	B.S.	Elkhorn.
Lowe, Walter Loring	B.S.	Shinnston.
Marten, William Gregory	A.B.	Shepherdstown.
Maxwell, Haymond	Ph.B.	Clarksburg.
McConkey, Orie	B.S.	Clarksburg.
McGlumphy, Walter Alexander	A.B.	Rocklick.
McKinley, Bruce	Ph.B.	Pullman.
Meredith, James Alva	A.B.L.	Alma.
Messenger, Oatis Guy	A.B.	White Water, Col.
Muldoon, John Dement	A.B.	Wheeling.
Obert, Frederick Christian William	A.B.	Ernest, Mo.
Poe, Clarence	A.B.	Grafton.
Rightmire, Ina Blanche	B.L.	Grafton.
Robe, Wilbur Lawrence	A.B.	Morgantown.

Juniors—Continued.

COURSE.

Roller, Robert Douglas, Jr.....A.B. .....Charleston.
Roller, Benjamin Richardson.....A.B. .....Charleston.
Sanders, Mary Virginia.....B.S. .....Maidsville.
Smith, Charles Sheldon.....A.B. .....Morgantown.
Smith, Alpheus Wilson.....A.B. .....Philippi.
Stalnaker, Edwards Stuart.....B.S. .....Martinsburg.
Waddell, Charles Walter.....A.B. .....Brandonville.
Willey, Chauncey DeWitt.....A.B.L. .....Morgantown.
Yeager, Lewis Armstrong.....A.B.L. .....Marlinton.

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Sophomores.

Bayles, Willie Halderman.....Ph.B. .....Gladesville.
Berkeley, Fannie Campbell.....Ph.B. .....Morgantown.
Brooke, Charles Frederick Tucker.....A.B. .....Morgantown.
Cameron, Leila Hope.....A.B. .....Morgantown.
Charter, Lathrop Russell, Jr.....A.B. .....West Union.
Cooper, Price Winfred.....A.B. .....Auburn.
Connell, John Harden.....A.B. .....Wellsburg.
Conley, Emma.....B.L. .....Fond du Lac, Wis.
Davis, William Guy.....A.B. .....New Milton.
Dille, Rachel Jane Hagans.....A.B. .....Morgantown.
Dodson, Raymond.....Ph.B. .....Spencer.
Fearnow, Marshall Harman .....Ph.B. ...Stotlers Cross Roads.
A.B., Northern Indiana Normal School, 1895.
Fortney, Lorain.....Ph.B. .....Athens.
Garrison, Harry Alph.....A.B. .....Morgantown.
Hawse, Allan Lee.....A.B. .....Needmore.
Hayes, Flora Ray.....B.L. .....Morgantown.
Hickman, Charles Benton .....A.B. .....Fairmont.
Hubbard, Beulah Brock.....Ph.B. .....Morgantown.
Jamison, Gillian.....B.L. .....Morgantown.
Lardin, Frank Miller.....A.B.L. .....Masontown, Pa.
Lewellyn, Elizabeth Valeria.....A.B. .....California, Pa.
Long, James Curry.....B.S. .....New Haven, Pa.
Meade, Robert Nelson.....B.L. .....Hinton.
McCrum, Arlington Bliss.....A.B. .....Aurora.
McGregor, Frank Herbert.....A.B.L. .....Cairo.
McKinney, Jane Etta.....A.B. .....Palatine.
McMurphy, Jerome Case.....A.B. .....Oak Park, Ill.
McVicker, Alberta Claire.....B.L. .....Morgantown.
McWhorter, Charles Nathan.....A.B.L. .....Lewisburg.
Meyers, Howard Melchoir.....A.B. .....Bramwell.
Miller, Jacob Franks.....Ph.B. .....Oldframe, Pa.

Sophomores—Continued.

	COURSE.	
Miller, Gilbert Benton	A.B.	Kearneysville.
Moreland, James Rogers	A.B.	Morgantown.
Naret, Joel Quarrier	B.S.	Charleston.
Norris, Rebeccah Lupton	B.S.	Glenville.
Provence, Leana Hague	B.L.	Morgantown.
Reynolds, Henry Dunlap Grinnel	B.S.	Wheeling.
Rogers, Harold Frantz	Ph.B.	Moundsville.
Shaffer, Phil A.	B.S.	Martinsburg.
Smith, William Winfred	A.B.	Ceredo.
Smith, DaCosta	A.B.	Weston.
St. Clair, Harry Alonzo	A.B.	Jaco.
Vannoy, John Dexter	Ph.B.	Morgantown.

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Freshmen.

Alexander, Clyde	A.B.	Morgantown.
Baird, Hallie Adella	B.L.	Elm Grove.
Baumgardner, Alberta Caroline	A.B.	Elk Lick, Pa.
Beall, Clarence Hough	A.B.	Morgantown.
Bennett, Lawrence Edward	B.S.	Ireland.
Bittle, Alethea Mona	A.B.	Morgantown.
Bitner, Leila Hinkle	A.B.	Kearneysville.
Boughner, Marston	B.S.	Clarksburg.
Bowman, Frank Lewellyn	A.B.	Charleroi, Pa.
Boyd, Robert Hanson	LL.B.	Martinsburg.
Brown, Robert Morrow	Ph.B.	New Cumberland.
Buck, Winona	B.S.	Morgantown.
Cobun, Linnie Belle	Ph.B.	Morgantown
Colebank, Ora Octave	Ph.B.	Stewartstown.
Core, Minnie Leigh	B.L.	Mount Morris, Pa.
Corbin, Frank Pickering	Ph.B.	Ellenboro.
Correll, Harry Davis	Ph.B.	Lewisburg.
Crenshaw, Vasser	A.B.	Athens, Ala.
Cushwa, Frank William	A.B.	Martinsburg.
Derbyshire, Charles Edward	A.B.	Huntington.
Duval, Harding LeMoyne	Ph.B.	Wellsburg.
Eary, John Wesley	A.B.	Mulvane.
Flesher, Clinton Wellrose	A.B.	Elkins.
Freshwater, Philip	A.B.	Penrith.
Gould, Lotta Worley	B.L.	Parkersburg.
Halstead, Ada Mae	B.S.	Kesler's Cross Lanes.
Harr, Levi Brooks	A.B.	Palatine.
Hayes, Jeannette Clements	B.L.	Morgantown.

Freshmen—Continued.

	Course.	
Herod, Francis Clyde	A.B.	Morgantown.
Hill, Lucian Anselm	Ph.B.	Hinton.
Hinton, Howard Charlton	A.B.	Hinton.
Izon, Alfred	A.B.	Pittsburg, Pa.
Johnson, Sarah Waugh	A.B.	Morgantown.
Jones, Bettie Cook	B.L.	Morgantown.
Keener, Hayes Harold	A.B.	Morgantown.
Meyers, Walter Howard	A.B.	Shepherdstown.
Largent, Robert Joseph	A.B.	Paw Paw.
Lively, Henry Shaw	LL.B.	Weston.
Martin, Bessie Catherine	B.L.	Morgantown.
Miller, Frances Livermore	A.B.	Monongah.
Miller, Dwight Edmund	A.B.	Fairmont.
Morgan, Lily Sarah	A.B.	Rivesville.
Neely, Matthew Mansfield	A.B.	Smithton.
Robinson, Delbert Thomas	A.B.	Grafton.
Rose, Herschel Hampton	A.B.	Mannington.
Rosier, Joseph	A.B.	Fairmont.
Ruttencutter, Okey Earl	A.B.	Morgantown.
Sanders, Harry	A.B.	Maidsville.
Sennett, Maud Savilla	Ph.B.	Morgantown.
Shisler, John Huffman	B.S.	Morgantown.
Schloss, Sidney	A.B.	Morgantown.
Shriver, Ross Chalfant	A.B.	Wadestown.
Snyder, Louis C.	A.B.	Laurel Point.
Spears, Samuel Tilden	Ph.B.	Robinson's Mills.
Spragg, John Worth	A.B.	Wadestown.
Stalnaker, Elizabeth Mattingly	B.L.	Martinsburg.
Taylor, Ernie Pearl	B.S.	Morgantown.
Thomas, Seth	A.B.	Mason.
Tresham, Jessie Mae	A.B.	Smithville.
Thompson, David C.	A.B.	Murphytown.
Vannoy, Isabel Jane	A.B.	Tanner.
Waddell, Lynne	B.L.	Brandonville.
Watkins, William Merle	B.S.	Grafton.
Waugh, Frances Bell	B.L.	Wellsburg.
Wayt, William Henry	A.B.	Maud.
Wertz, Edna Earle	A.B.	Huntington.
Yager, Mary Louise	B.L.	Wheeling.

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Premedical Students.

Annan, William Dent Roberdeau.....Newburg.
Casey, Thomas Jeremiah.....Morgantown.
Casey, Clyde John.....Morgantown.
Davis, Warren Maynard.....McGee.
Dent, Samuel Marmaduke.....Duke.
Downey, John Otho.....Martinsburg.
Earley, Daniel Forest.....Union.
Franks, William Passavant.....Uniontown, Pa.
Hall, Lloyd L.....Laurel Point.
Hereford, Will Delafield.....St. Albans.
Honaker, George Thomas.....Duhring.
Kellam, Harry .....Hinton.
Kenney, George Wellington.....Burning Springs.
Mayer, John Henry.....Ashland.
McCuskey, Hoy Bruce.....Moundsville.
McMurtrie, Robert Wells.....Latrobe, Pa.
Midelburg, Charles.....Charleston.
Moore, Phœbia.....Mannington.
Noble, Joseph Glass.....Homestead, Pa.
Pepper, Claude.....Flemington.
Powell, Harvey Clarence.....Lima.
Schad, Oscar Frederick.....Benwood.
Scott, Buckner Fairfax.....Terra Alta.
Smith, John Calvin.....Salem.
Sprinkle, Pergolia Oren.....Martinsburg.
Staats, Okey Maxwell.....Ravenswood.
St. Clair, Franklin John.....Morgantown.
Stewart, Robert Hanson.....Martinsburg.
Steele, Samuel Clark.....Miracle Run.
Steele, Harry George.....Keystone.
Wagner, Clinton Bryson.....Hebron.
Willis, Carson Allen.....Bridgeport.

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Special Students.

Brown, Albert Gallatin.....Worley.
Brown, Lucie Sara ..... New Cumberland.
Brown, Mabel Suter.....Huntington.
Buck, Winona H.....Morgantown.
Burgess, Fannie Corrie.....Huntington.
Cameron, Victor Vernon.....Morgantown.
Carder, Jacob Burdes.....Morgantown.
Carter, Anne Margaret.....Whitfield.
Chorpenning, Lloyd Gephart.....Indian Head.
Collett, Albert Jackson.....Beverly.
Coplin, Mary.....Boothesville.

Curtis, Alverda Martin.....West Liberty.
Davis, Herbert David.....Peewee.
Dering, Grace Enzy.....Morgantown.
Douthat, Luther L.....Morgantown.
Douthat, Dana Glenn.....Morgantown.
Egbert, Elizabeth Ella.....North Hector, N. Y.
Eliason, Amy Ermine.....Fairmont.
Evans, Charles William.....Fairmont.
Ferguson, Henry Creed.....Cottageville.
Frazer, James Carroll.....Martinsburg.
Frazer, Leila Jessie.....Martinsburg.
Gosser, Lydia Jane.....Pittsburg, Pa.
Goodhue, Willis Elbridge.....Silver Creek, N. Y.
Grant, Edith Mary.....Morgantown.
Grant, Hannah Elizabeth.....Morgantown.
Harrison, Emily Stewart.....Atlanta, Ga.
Hill, Thomas Getzandaner.....Frostburg, Md.
Hoff, Minnie Wilson.....Morgantown.
Hopkins, Roy Samuel.....Morgantown.
Horner, Blanche Macauley.....Dayton.
Hull, Abigail Mary.....Morgantown.
John, Gilbert Madison.....Morgantown.
Johnson, Laura Dale.....Long Reach.
Johnson, Agnes Stephenson.....Morgantown.
Larew, Hiram Gordan, Jr.....Independence.
Lea, Ernest Durfey.....Huntington.
Leonhart, William Henry.....Parkersburg.
Martin, Elizabeth Margrette.....Randall.
Martin, Ella Hays.....Cairo.
Martin, Grace.....Morgantown.
McAdoo, Laura Sterrette.....Knoxville, Tenn.
McKinney, Odell Payne.....Fairmont.
McKendree, Mary Alice.....Huntington.
McLaughlin, Lou.....Huntington.
McMurphy, Russell.....Oak Park, Ill.
Miller, Edmund Dittmar.....Vanderbilt, Pa.
Nesbitt, Charles Lorrence.....Fairmont.
McQuiston, Fanny Craig.....Pittsburg, Pa.
Moore, Elizabeth Louise.....Huntington.
Montoulieu y de la Torre, Eduardo.....Puerto Principe, Cuba.
Montoulieu y de la Torre, Enrique.....Puerto Principe, Cuba.
Morris, Lila Kemble.....Morgantown.
Neel, Isa Maud.....Pullman.
Nethkin, Charles Ervin.....Elk Garden.
Ocheltree, Charles Hanson.....Reedsville.

Pollock, Isa Lenore.....Morgantown.
Pollock, Bernice Evangeline.....Morgantown.
Prevatt, Joseph Bry.....Levyville, Fla.
Richardson, Homer Campbell.....New Martinsville.
Romine, Carl Ruply.....Johnstown.
Ross, Cora Belle.....Simpson.
Rowland, Helen Doolittle.....Pittsburg, Pa.
Seip, Edna Delilah.....Pittsburg, Pa.
Shape, Frank Allfree.....New Salem, Pa.
Smith, Christopher Tompkins.....Charleston.
Smith, Frank Irene.....Martinsburg.
Smith, Benjamin Clay..... Spencer.
Speigel, James Lewellyn.....Arnold, Pa.
Trapnell, William.....Charles Town.
Trice, Cora Lee.....Huntington.
Trotter, Jessie.....Buckhannon.
Utt, Oranna Ellen.....Morgantown.
Varner, James Patterson.....Stewartstown.
Waters, Charles Harland.....Laurel Point.
Watson, Willie May.....Morgantown.
Weber, Mary.....Oakland, Md.
Webster, Edward Harlan.....Washington, D. C.
Wharton, Maude May.....Elm Grove.
White, Edith Nina Miller.....Morgantown.
White, Fanny Russell.....Morgantown.
Whitescarver, Elizabeth Lee.....Pruntytown.
Wiles, Nicketie.....Spaulding.
Willis, Dennis Martin.....Bridgeport.
Wilson, Agnes.....Pennsboro.
Wood, Daise Mae.....Morgantown.

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College of Engineering and Mechanic Arts.

Seniors.

	Course	
Abersold, Jacob Julius	C.E.	New Martinsville.
Frum, Floyd Neely	C.E.	Bridgeport.
Gramm, George Edgar	M.E.	Grafton.
Green, Paul Evans	C.E.	Wheeling.
Konrad, Philip	C.E.	New Martinsville.
Lewellyn, Lee	C.E.	Duke.
Quimby, Charles Henry, Jr.	C.E.	Wheeling.
Snyder, Jules Verne	C.E.	Lewisburg.
Tait, Alexander Gordon	C.E.	Randall.

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Juniors.

	Course.	
Frey, Homer Amos	M.E.	Ronceverte.
Holy, George Henry Ferdinand	M.E.	Grafton.
Utt, Des Moines	M.E.	Morgantown.
Willis, John Augustine	M.E.	Summit Point.

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Sophomores.

Eakin, John Ross	C.E.	New Martinsville.
Faulkner, Frank Bishop	M.E.	Albright.
Gibson, William Herbert	C.E.	Tunnelton.
Hennen, Ray Vernon	C.E.	St. Cloud.
Holland, Walter Force	C.E.	Morgantown.
Ireland, Emory Ison	C.E.	White Oak.
Jenkins, Opha Fleming	M.E.	Morgantown.
Lang, Thomas Simeon	C.E.	Bridgeport.
Law, Asby Steele	C.E.	Clarksburg.
McMechen, Frank List	C.E.	McMechen.
Randolph, Clyde	M.E.	Salem.
Ross, John Gilmore	C.E.	Morgantown.
Sage, Archie Bruce	M.E.	Wellsburg.
Six, William Louis	C.E.	Wadestown.
Thompson, Louis Clarence	M.E.	Morgantown.
Whitham, George Robins	M.E.	Morgantown.
Zevely, Harry John	M.E.	Wheeling.

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Freshmen.

Bayles, George Harmon	M.E.	Easton.
Burns, Dana Blackburn	C.E.	Burnsville.
Burk, Fred Ross	C.E.	Pittsburg, Pa.
Cole, Emmert Luther	C.E.	Morgantown.
Dickey, Albert Ford	C.E.	Huntington.
Hutchinson, Frank David	C.E.	Keyser.
Kysor, Walter Archibald	M.E.	Pt. Marion, Pa.
Lucas, Arthur Mapel	C.E.	Morgantown.
Killingsworth, Richard Huffman	C.E.	Truebada.
Maxwell, Earle Cook	C.E.	Wheeling.
McMechen, Carl Carter	M.E.	McMechen.
Moreland, Henry Lazier	M.E.	Morgantown.
Moore, Charles Larkins	C.E.	Brownsville, Pa.
Muldoon, Frank Walker	M.E.	Elm Grove.
Nelson, Martin Emett	C.E.	Halleck.
Price, William Chalfant	C.E.	Morgantown.
Printz, Benjamin Graeff	M.E.	Morgantown.

Freshmen—Continued.

	COURSE.	
Read, Robert Gwynne	M.E.	Elkins.
Robinson, Carel	C.E.	Charleston.
Rogers, Ralph	M.E.	Morgantown.
Shelby, Edward Frank	C.E.	Uniontown, Pa.
Swallow, Walter Ambrose	C.E.	Pittsburg, Pa.
Tabler, Ernest Corban	C.E.	Martinsburg.
Willey, Guy Allen	M.E.	Morgantown.

—24.

College of Agriculture.

Graduate Students.

Johnson, Thomas Carskadon, Lewisburg.
B.S.Agr., West Virginia University, 1896.

Morris, Russell Love, Morgantown.
B.S.C.E., West Virginia University, 1896; C.E., *ibid.*, 1898.
Agriculture, Horticulture.

—2.

Seniors.

	COURSE.	
Atkeson, Thomas Zephaniah	B.Agr.	Buffalo.
Naret, William Frazier	B.S.Agr.	Morgantown.

B.Agr., West Virginia University, 1898.

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Freshmen.

Jones, Elbert	B.Agr.	Rivesville.
Symms, Clarence	B.Agr.	Karn.
Varner, Walter Forrest	B.Agr.	Stewartstown.

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Special Students.

Atkeson, Karl Clark.....Buffalo.
Correll, Harry Davis .....Lewisburg.
Blackwood, Kenna Carpenter.....Lock Seven.
Davis, Frank Amos.....Morgantown.
Dils, Sherman.....Parkersburg.
Hall, Josiah Springer.....Cassville.
John, Gilbert Madison.....Morgantown.
Krebs, George Robert.....New Martinsville.
Lawrence, Benjamin Franklin.....Athens.

Special Students—Continued.

McDonald, James William.....Darkesville.
Pollock, William McCally.....Morgantown.
Reynolds, Henry Dunlap Grinnel.....Wheeling.
Smith, Alpheus Wilson.....Philippi.
Waters, Charles Harland.....Laurel Point.

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College of Law.

Graduate Students.

Anderson, Harry McClellan, Charleston.
LL.B., Center College, 1898.
Davis, William Austin, Morgantown.
LL.B., West Virginia University, 1897.
Wolfhope, Frank Alphonsus, Cumberland, Md.
LL.B., West Virginia University, 1896.

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Seniors.

	Course.	
Anderson, George Edward	LL.B.	Latrobe, Pa.
Boyd, George Frank	LL.B.	Morgantown.
Brown, James Estill	LL.B.	Bluefield.
Daniel, Jesse Ward	LL.B.	Beury.
Davis, Thomas Jeffrey	LL.B.	Harrisville.
Dobbs, Lee Fillmore	LL.B.	Wheeling.
Donley, Edward Gregg	LL.B.	Mount Morris, Pa.
Downey, William Walton	LL.B.	Martinsburg.
Drane, William Kellar	LL.B.	Piedmont.
Flournoy, Richard Parke	LL.B.	Charleston.
Frazer, James Carroll	LL.B.	Martinsburg.
Frazer, Leila Jessie	LL.B.	Martinsburg.
Hatfield, John L	LL.B.	Fordyce, Pa.
Hoge, Robert Roy	LL.B.	Hinton.
Horner, Marion Sackett	LL.B.	Ohl, Pa.
Jacob, Carl Kelly	LL.B.	Wellsburg.
B.S., Washington and Jefferson College, 1895.		
Kennedy, William Grant	LL.B.	Tarentum, Pa.
Lindsay, Ward Baker	LL.B.	Martinsburg.
Mansbach, Isaac	LL.B.	Cumberland, Md.
Martin, Clarence Eugene	LL.B.	Martinsburg.
Maynard, John Franklin	LL.B.	Bluefield.
McCandless, Ira Dell	LL.B.	Parkersburg.

Seniors—Continued.

	Course.	
McGregor, Rob Roy	LL.B.	Cairo.
Meek, John Henry	LL.B.	Preston.
Miller, Robert Hamilton	LL.B.	Gauley Bridge.
Palmer, John Hundley	LL.B.	Evansville.
Poteet, Lucian Euraw	LL.B.	Red Star.
Rex, Edward Bower	LL.B.	Jefferson, Pa.
Sweeney, John E. Bell	LL.B.	Wheeling.
B.S., Washington and Jefferson College, 1896.		
Thomas, James G	LL.B.	Elkhorn.
Welch, Richard Adams	LL.B.	Keyser.
White, Robert	LL.B.	Romney.
Wiles, Lillian Ruth	LL.B.	Morgantown.
Willis, Willis Curtis	LL.B.	Boothesville.
Willis, Dennis Martin	LL.B.	Morgantown.

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Juniors.

Allen, Robert Ethan	C.	Ridersville.
Barnitz, Edward Staples	LL.B.	Elkhorn.
Bennett, Porter	C.	Tanner.
Bond, Edwin Sortorus	LL.B.	Horton.
Bowman, William B	C.	Rowlesburg.
Brackman, Mason Clarke	C.	Ronceverte.
Brandon, Charles Wyatt	C.	Elkins.
Bush, Coleman Hall	C.	New England.
Butler, Seaton Garland	LL.B.	Parkersburg.
Byrnside, Marshall Azariah	C.	Burdette.
Caldwell, Gibson Lamb	LL.B.	Wheeling.
Calhoun, Harrison Mayberry	C.	Franklin.
Chambers, Henry Brooke	C.	Cambridge, O.
Chapman, Clyde Kester	C.	Harrisville.
Comstock, Willard	C.	Charleston.
Cookman, John	C.	Auburn.
Carver, Edgar Ashby	C.	Harrisville.
Cooper, Harry Withers	C.	Hinton.
Day, Clay	LL.B.	Mouth of Seneca.
Donahey, James Henry Harrison	LL.B.	Allegheny City, Pa.
Dunn, Hugh Alba	C.	Peterstown.
Easley, David Milton	C.	Bluefield.
Ebbert, John McChesney	LL.B.	Greencastle, Pa.
*Elder, William Clarence	LL.B.	Boothesville.
Engle, Thomas Stealey	C.	Middlebourne.
Flournoy, Harry Lightfoote	C.	Charleston.

*Died October 3, 1898.

COURSE.

Fox, Fred Lee.....C. .....Sutton.
Glasscock, William Ellsworth.....C. .....Morgantown.
Green, Edward H.....C. .....Grass Lick.
Guy, Robert Emmet.....C. .....Lewisburg.
Hall, Charles Leonard.....C. .....New Martinsville.
Hardwick, Daniel Boone.....C. .....Effie.
Hatcher, John Henry.....C. .....Bluefield.
Hendrick, John James.....C. .....Plum Branch.
Holsberry, Leory Virgil.....C. .....Kalamazoo.
Honaker, Thomas Jesse.....C. .....Marshes.
Hughes, William Wellington.....LL.B. .....Mineral.
Hundley, John Palmer.....C. .....Evansville.
Huntington, Paul.....C. .....Green Bay, Wis.
Johnson, Edward Marshall.....C. .....Points.
Kaufmann, Edward John .....C. .....Pittsburg, Pa.
Kee, John .....C. .....Glenville.
Keifer, Walter Bee.....C. .....Paden's Valley.
Lambert, James Tilghman.....C. .....Effie.
Langley, Clark .....C. .....Charleston.
Lehman, John Lee.....C. .....Fairmont.
Loar, Robert Alison.....C. .....Valley Furnace.
McIntosh, Charles Leon.....C. .....Ravenswood.
McLane, Samuel Henry.....C. .....Orpha.
Moore, Kit Carson.....C. .....Joseph's Mills.
Morrison, Harry Clay.....C. .....Wilsonburg.
Musgrave, Frederick Gerald.....C. .....Point Pleasant.
Musgrave, George Curtis.....C. .....Point Pleasant.
Newcomer, Frank Coldren.....C. .....High House, Pa.
O'Neil, Harry Francis.....LL.B. .....Moundsville.
Pastorius, Thomas Frederick .....C. .....Morgantown.
Peters, Francis Marion.....C. .....Iaeger.
Phillips, Harry Ralph.....C. .....Verona, Pa.
Radcliffe, Count Lee.....C. .....Wheeling.
Rose, Charles Curtin.....LL.B. .....Morgantown.
B.S., Waynesburg College, 1896.
Shriver, John .....C. .....Daybrook.
Smith, Jean Frederick.....C. .....Olive Furnace, O.
Smith, Gerald Newton.....C. .....Dayton.
Snee, William Jefferson.....C. .....Epton, Pa.
Spears, Samuel Tilden.....C. .....Robinson's Mills.
Srolowitz, Max Herman.....C. .....Wheeling.
Swiger, John Russell.....C. ..... Dola.
Swint, Charles Patrick.....C. .....Weston.

	Course.	
Thomson, Alfred Nevette	C.	Morgantown.
Tyson, Herman Edward	C.	Grassland.
Warder, Hugh	C.	Grafton.
Watts, Burwell	C.	Effie.
Weaver, Frank	C.	Morgantown.
Wenzell, Richard Orlando	C.	Moundsville.
Wiles, George Rogers Clarke	C.	Spaulding.
Wilson, John Clifton Bursee	C.	Milton.

—76.

The School of Music.

Vocal.

Bailey, Gertrude	Morgantown.
Baird, Hallie Adella	Elm Grove.
Barthlow, Olive	Morgantown.
Bartlett, General T	Webster.
Bennett, William	Morgantown.
Boyers, Allie	Morgantown.
Boyers, Lillian	Randall.
Boyers, Nettie	Randall.
Brock, Martha	Morgantown.
Browning, Bertha Cleland	Wellsburg.
Brown, Lucie Sara	New Cumberland.
Burk, Fred Ross	Pittsburg, Pa.
Bush, Coleman Hall	New England.
Butler, Seaton Garland	Parkersburg.
Camp, Gilla	Morgantown.
Carney, Emerson	Morgantown.
Casey, Clyde John	Morgantown.
Cole, Emmet Luther	Morgantown.
Comstock, Willard	Charleston.
Coombs, Wilbur Layton	Morgantown.
Corbin, Frank Pickering	Ellenboro.
Cox, Estella	Morgantown.
Crow, Goldie	Morgantown.
Dawson, Martha	Morgantown.
Deming, Lee Clarence	Oil City, Pa.
Dobbs, Lee Fillmore	Wheeling.
Doolittle, George Leslie	Independence.
Dorsey, Albert	Morgantown.
Ellenberger, Alma	Morgantown.

Egbert, Ella Elizabeth.....North Hector, N. Y.
Frum, Floyd Neely.....Bridgeport.
Gilbert, Sue Carskadon.....Piedmont.
Gould, Bessie .....Morgantown.
Gould, Lotta Worley.....Parkersburg.
Gregg, Mary Edith.....Morgantown.
Gregg, Bessie Lee.....Morgantown.
Gregg, John Morton.....Morgantown.
Hackney, Ida .....Morgantown.
Hackney, Anna.....Morgantown.
Hare, Mrs. Alfred Jarrett.....Morgantown.
Hayes, L. Gertrude.....Morgantown.
Hayes, Mary Louise.....Morgantown.
Hennen, Anna Belle.....Morgantown.
Herod, Francis Clyde.....Morgantown.
Hervey, Henry Jacob.....Morgantown.
Hill, Thomas Getzandaner.....Frostburg, Md.
Hopkins, Hattie .....Morgantown.
Howard, C. D.....Morgantown.
Ireland, Addie Rosalie.....Morgantown.
Ireland, Bassil Watts.....Morgantown.
Jamison, Gillian .....Morgantown.
Jobes, Jenny .....Morgantown.
Johnson, Belle .....Morgantown.
Johnson, Anna .....Morgantown.
Joliffe, Neva .....Morgantown.
Joliffe, Nellie .....Morgantown.
Jones, Clement Ross.....Morgantown.
Jones, Elbert .....Rivesville.
Langley, Clark .....Charleston.
Laughead, Sallie .....Morgantown.
Lazzelle, Mrs. I. G.....Morgantown.
Lea, Ernest Duffrey.....Huntington.
Lough, Laura .....Morgantown.
Lucas, Arthur Mapel.....Morgantown.
Martin, Bessie Catherine.....Morgantown.
Martin, Mary .....Morgantown.
McKinley, Bruce .....Pullman.
McMillan, Julius Ray.....Masontown.
Meade, Robert Nelson.....Hinton.
Miller, Frances Livermore.....Monongah.
Miller, Daniel Warren.....Dilliner, Pa.
Moorhead, Jessie .....Morgantown.
Moore, Charles Larkin.....Brownsville, Pa.

Meninger, Herbert Henry.....Bethany.
Muldoon, Frank Walter.....Triadelphia.
Nelson, J. Frank.....Morgantown.
Ohern, Daniel Webster.....Des Moines, Iowa.
Parsons, Stella Maude.....Morgantown.
Post, Arthur Lee.....Good Hope.
Provence, Millicent .....Morgantown.
Provence, Ethel .....Morgantown.
Provence, Leana .....Morgantown.
Raymond, Josephine .....Morgantown.
Reynolds, Mabel Curry.....Morgantown.
Rex, Edward Bowers.....Jefferson, Pa.
Rose, Charles Curtin.....Clarksville, Pa.
Ross, Charley Fordyce.....Simpson.
Ross, Minerva .....Simpson.
Ross, John Gilmore.....Morgantown.
Sadler, Zella.....Point Marion, Pa.
Shafer, Adella .....Morgantown.
Sharp, Margaret Ellinor.....New Martinsville.
Sisler, Millard F.....Morgantown.
Smith, Amber Grace.....Tyrone, Pa.
Smith, William Winfred.....Ceredo.
Smith, Jean Frederick.....Olive Furnace, Ohio.
Sprinkle, Pergolia Oren.....Martinsburg.
Swallow, Walter Ambrose.....Pittsburg, Pa.
Van Gilder, Lida Edna.....Morgantown.
Van Gilder, Lena Gertrude.....Morgantown.
Vannoy, John Dexter.....Tanners.
Vannoy, Isabel Jane.....Tanners.
Wade, Rose Chorpening.....Morgantown.
Watts, Eva .....Morgantown.
Watson, Clyde Emil.....Kingwood.
Weber, Mary.....Oakland, Md.
White, Fanny Russell.....Morgantown.
White, Orilas Grant.....Bethany.
Whitehill, Anna Wilson.....Morgantown.
Whitescarver, Elizabeth Lee.....Pruntytown.
Wood, Blanche .....Morgantown.
Wood, Daise Mae.....Morgantown.
Wood, Ruth .....Morgantown.
Yager, Mary .....Morgantown.

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Piano.

Aldrich, Mary Lavinia.....Morgantown.
Boyers, Lillian .....Randall.
Brock, Agnes Lauck.....Morgantown.
Brown, Lucie Sara.....New Cumberland.
Carroll, Mary McKee.....Kingwood.
Corbitt, Garland Crozier.....Waverly.
Courtney, Crystal .....Randall.
Courtney, Lizzie Lee.....Morgantown.
Curtis, Alverda Martin.....West Liberty.
Cushman, Sarah Allie.....Morgantown.
Davis, Bessie Belle.....Morgantown.
Dudley, John Willis.....Parkersburg.
Fetzer, Katherine .....Moorefield.
Fitch, Jessie Johnson.....Morgantown.
Fleming, Sara Rebecca.....Morgantown.
Fravel, Mary Stewart.....Poca.
Gilbert, Sue Carskadon.....Piedmont.
Grant, Mary Edith.....Morgantown.
Grant, Hannah Elizabeth.....Morgantown.
Hartigan, Elizabeth Willey.....Morgantown.
Hayes, Flora Ray.....Morgantown.
Hite, Evelyn Pratt.....Morgantown.
Houston, Ada Virginia.....Morgantown.
Howe, Rosalie Boughner.....Morgantown.
Keener, Beulah Blanche.....Morgantown.
Layton, Lulu Eugenia .....Morgantown.
Long, Robert Lee.....Morgantown.
Marshall, Essie Fay.....Adonis.
Moore, Lavina L.....Woodside, Pa.
Protzman, Blanche .....Morgantown.
Ross, Minerva Emma.....Simpson.
Sadler, Zella.....Point Marion, Pa.
Sharp, Margaret Ellinor.....New Martinsville.
Steele, Nellie Victoria.....Morgantown.
Stewart, Stella May.....Mannington.
Turner, Mary Rebecca.....Morgantown.
Waugh, Frances Bell.....Wellsburg.
Weber, Mary.....Oakland, Md.
White, Fanny Russell.....Morgantown.
White, Nellie Moorehead.....Morgantown.
Whitehill, Anna Wilson.....Morgantown.
Whitehill, Elizabeth Wilson.....Morgantown.
Wilgus, Frances Marguerite.....Morgantown.

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Organ.

Garrison, Olive Mae.....Morgantown.

—1.

Violin.

Bayles, Willie Haldeman.....Gladesville.
Cummins, John William.....Wheeling.
Harr, Levi Brooks.....Fairmont.
Hundley, John Palmer.....Evansville.
Jaco, Lin Milton.....Morgantown.
Jones, Elbert .....Rivesville.
Martin, Carroll Forman.....Morgantown.
McMurphy, Jerome Case.....Oak Park, Ill.
Murphy, James Scott.....Morgantown.
Ownby, Frederick Hager.....Morgantown.
Ramage, Samuel Clayton.....Elranna, Pa.
Sprinkle, Pergolia Oren.....Martinsburg.
Willis, Jessie Joshua.....Bridgeport.

—13.

Guitar.

Brown, Lucie Sara.....New Cumberland.
Burk, Fred Ross.....Pittsburg, Pa.
Gilbert, Sue Carskadon.....Piedmont.
Gould, Lotta Worley.....Parkersburg.
Johnston, Walter Guy.....Union.
Keener, Hayes Harold.....Dunkard, Pa.
McDonald, James William.....Darkesville.
Ross, Minerva Emma.....Simpson.
Smith, James Henry.....Morgantown.
Spragg, John Worth.....Wadestown.
Stepp, Pricie.....Warfield, Ky.
Stewart, James Vance.....Morgantown.
Tapp, Elizabeth Louise.....Morgantown.
Utt, Oranna Ellen.....Morgantown.
Weaver, Frank .....Morgantown.
Whitescarver, Elizabeth Lee.....Pruntytown.
Wiles, Nicketie Buchanan.....Spaulding.
Wood, Lucy Berkshire.....Morgantown.

—18.

Mandolin.

Buchanan, Joseph Kerr.....Morgantown.
Butcher, Willa Hart.....Fairmont.
Carver, Edgar Ashby.....Harrisville.
Davis, Thomas Jeffrey.....Harrisville.
Deming, Lee Clarence.....Oil City, Pa.
Dudley, John Willis.....Parkersburg.
Fetzer, Katherine .....Moorefield.
Herod, Francis Clyde.....Morgantown.
Martin, William Gregory.....Shepherdstown.

Mandolin—Continued.

McCutcheon, Alvaro Bourke.....Belva.
Miller, Dana Paul.....Fairmont.
Ross, John Gilmore.....Morgantown.
Rowland, Helen Doolittle.....Pittsburg, Pa.
Smith, Earl Harry.....Fairmont.
Venable, Ernest Haymond.....Charleston.
Wood, George Washington.....Morgantown.
—16.

Banjo.

Cooke, Jean Valjean.....Morgantown.
Garrison, Harry Alpheus.....Morgantown.
Langley, Clark.....Charleston.
Snyder, Lewis Clark.....Laurel Point.
Ward, Emma.....Lee Bell.
—5.

Cornet.

Smith, Amber Grace.....Tyrone, Pa.
—1.

The Department of Drawing and Painting.

Atkeson, Mary Meek.....Morgantown.
Bailey, Gertrude .....Morgantown.
Bailey, Bruce .....Tyrconnell.
Barbe, Clyde Davis.....Morgantown.
Barnes, Frank Raymond.....Morgantown.
Bayles, George Harmon.....Easton.
Berlin, William Merkle.....Export, Pa.
Bittle, Mona Alethea.....Morgantown.
Boyers, Charles Forrest.....Randall.
Boyers, Netta Myrtle.....Randall.
Burns, Dana Blackburn.....Burnsville.
Burk, Fred Ross.....Pittsburg, Pa.
Cameron, Leila Hope.....Morgantown.
Carter, Margaret Anne.....Whitfield.
Cazayoux, Frank.....New Roads, La.
Chadwick, George Sturgiss.....Morgantown.
Cobun, Linnie Belle.....Morgantown.
Coda, Bartholomew B.....Maidsville.
Cole, Emmet Luther.....Morgantown.
Compton, Bertha Ellen.....Pedlars.
Corbin, Frank Pickering.....Ellenboro.
Core, Minnie.....Mount Morris, Pa.
Davis, Ralph .....Morgantown.
Davenport, Emma White.....Morgantown.

Deming, Lee Clarence.....Oil City, Pa.
Dent, Carrie Louise.....Grafton.
Dering, Grace Enzy.....Morgantown.
Douthat, Dana Glenn.....Morgantown.
Egbert, Ella Elizabeth.....North Hector, N. Y.
Egbert, Edgar Howard.....North Hector, N. Y.
Frankenberger, Hugo .....Charleston.
Fravel, Mary Stewart.....Poca.
Finnell, Virgil Carl.....Morgantown.
Grant, Mary Edith .....Morgantown.
Grant, Hannah Elizabeth.....Morgantown.
Halstead, Ada Mae.....Kesslers Cross Lanes.
Hawse, Allen Lee.....Needmore.
Hayes, Jeannette Clements.....Morgantown.
Hewitt, Frank Ready.....Bramwell.
Hoard, James Luther.....Hoard.
Holland, Walter F.....Morgantown.
Hughes, Alvaroe Glenn.....Ravenswood.
Hutchinson, Frank D.....Keyser.
Ireland, Addie .....Morgantown.
Ireland, Bassil W.....Morgantown.
Jamison, Gillian .....Morgantown.
Johnson, Belle Wade.....Morgantown.
Johnson, Anna Ballon.....Morgantown.
Johnston, Walter Guy.....Union.
Kincaid, Della Martha.....Morgantown.
Koontz, James Andrew.....Morgantown.
Lawrence, Benjamin Franklin.....Athens.
Lemley, Gilbert Southey.....Mount Morris, Pa.
Lowe, Scott Cephas.....Eldora.
Marshall, Essie Fay.....Sistersville.
Maxwell, Earl Cook.....Wheeling.
McDonald, James William, Jr.....Darkesville.
McKinney, Jane A.....Fairmont.
McMechen, Carl Carter.....McMechen.
Minder, John.....Ursina, Pa.
Moore, Charles L.....Brownsville, Pa.
Moore, John William.....Mannington.
Moore, Elizabeth .....Huntington.
Neel, Isa Maud.....Pullman.
Nelson, Martin Emmet.....Halleck.
Norris, Rebecca Eloise.....Glenville.
Parsons, Stella Maude.....Morgantown.
Parsons, William Ewing.....Morgantown.
Patton, Benjamin Franklin.....Harrisville.

Poe, Clarence ..... Grafton.
Provence, Lida Ethel ..... Morgantown.
Provence, Nannie Emily ..... Morgantown.
Provence, Sophia Media ..... Morgantown.
Rittenhouse, Seymour Tilden ..... Dola.
Robinson, Carel ..... Charleston.
Rose, Charles Curtin ..... Clarksville, Pa.
Sanders, Helen Maud ..... Morgantown.
Sanders, Mary Virginia ..... Maidsville.
Sanders, Harry ..... Maidsville.
Schaeffer, Bertha B. ..... Morgantown.
Schloss, Sidney ..... Morgantown.
Sennett, Maud Savilla ..... Morgantown.
Sprinkle, Pergolia Oren ..... Martinsburg.
Stalnaker, Elizabeth Mattingly ..... Martinsburg.
Stewart, James Vance ..... Morgantown.
Swisher, Scott Neal ..... Parsons.
Sutton, Felix Oren ..... Martinsburg.
Swallow, Walter Ambrose ..... Pittsburg, Pa.
Tabler, Ernest Corban ..... Martinsburg.
Taylor, Ernie Pearl ..... Dunkard, Pa.
Thurman, Walter Rippetoe ..... Red Star.
Tyson, Edna Riley ..... Grassland.
Utt, Oranna Ellen ..... Morgantown.
Venable, Ernest Haymond ..... Charleston.
Watson, Willie May ..... Morgantown.
Watkins, William Merle ..... Grafton.
Waddell, Charles Walter ..... Brandonville.
Waddell, Lynne ..... Brandonville.
Whitham, William Henry ..... Morgantown.
Whitham, Rachel ..... Morgantown.
White, Edith Morehead ..... Morgantown.
Wood, Florence A. ..... Morgantown.
Wood, Lucy Berkshire ..... Morgantown.
Wiles, Nicettie Buchanan ..... Spaulding.
Wong, Hong Guey ..... Pittsburg, Pa.
Wotring, Minnie Love ..... Morgantown.
Yeager, Mary L. ..... Morgantown.

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The Commercial School.

Atkeson, Karl Clark ..... Buffalo.
Atkeson, Mary Meek ..... Buffalo.
Alter, Martha Lena ..... Morgantown.
Alexander, Clyde ..... Morgantown.

Auvil, Jesse Herbert.....Iaeger.
Barbe, Clyde .....Morgantown.
Bailey, Gertrude .....Morgantown.
Bayles, Willie Halderman.....Gladesville.
Blackwood, Kenna Carpenter.....Lock Seven.
Blackshere, Harry .....Mannington.
Blair, Smith.....West Union.
Boyd, George Frank.....Morgantown.
Brackman, Mason Clarke.....Ronceverte.
Brandon, John Alexander.....New Cumberland.
Brown, James Estill.....Bluefield.
Buchanan, Margaret .....Morgantown.
Bush, Coleman Hall.....New England.
Butcher, Willa Hart.....Fairmont.
Capehart, Carl Arnett.....Morgantown.
Cobun, Alice .....Morgantown.
Cobun, John.....Morgantown.
Coda, Bartholomew Bascome .....Maidsville.
Cole, Clyde Alonzo.....Grafton.
Comstock, Willard .....Charleston.
Connell, John Harden.....Wellsburg.
Connor, Anna Taylor.....Uniontown, Pa.
Corbitt, Garland Crozier.....Waverly.
Cox, Drue Lingo.....Uniontown, Pa.
Cummins, John .....Wheeling.
Davis, Madge Belle.....Morgantown.
Davis, Frank Amos.....Morgantown.
Davis, Walter Oral.....Morgantown.
Davis, William Austin.....Morgantown.
Deusenberry, Iona May.....Morgantown.
Deming, Lee Clarence.....Oil City, Pa.
Dille, Elisha Merrill.....Morgantown.
Dils, Sherman .....Parkersburg.
Donley, Edward Gregg.....Mount Morris, Pa.
Dudley, John Willis.....Parkersburg.
Evans, Mayross Rhemeses.....Glade Farms.
Finnell, Harry Wesley.....Morgantown.
Fogle, Homer Bruce.....Mannington.
Gainer, James Ervin.....Morgantown.
Gantz, William Franklin.....Morgantown.
Gantz, Oscar Henry.....Morgantown.
Gregg, John Morton.....Morgantown.
Gregg, Bessie Lee.....Morgantown.
Guy, Robert Emmet.....Lewisburg.

Hall, Leonard S.....New Martinsville.
Hatfield, John L.....Fordyce, Pa.
Hawk, Abraham Rogers.....Morgantown.
Hayes, Jeannette Clements.....Morgantown.
Hennen, Anna Bell.....Morgantown.
Henry, James Eli.....Uffington.
Himmler, Charles Frederick.....Morgantown.
Hoge, Robert Roy.....Hinton.
Horner, Marion Sacket.....Ohl, Pa.
Freshwater, Phillip .....Penrith.
Jacobs, John Nelson.....Brownsville, Pa.
Jamison, Gillian .....Morgantown.
Jamison, Charles Edward.....Morgantown.
John, Daisy Belle.....Morgantown.
Johnston, Walter Guy.....Union.
Johnson, Edward Marshall.....Points.
Keene, Frank William.....Morgantown.
Kime, Lorain Garfield.....Morgantown.
Kunkel, Josephine .....Morgantown.
Lowe, Scott Cephas.....Eldora.
Lynch, Charles Alexander.....Bridgeport.
Lynch, William Arthur.....Sand Run.
Markley, George Leland.....Junior.
Martin, Grace .....Morgantown.
Martin, Bessie .....Morgantown.
Marten, William Gregory.....Shepherdstown.
Maust, Frank L.....Morgantown.
Maxwell, Clay.....Peel Tree.
McCormick, Josephine Pearl.....Morgantown.
McDonald, James William, Jr.....Darkesville.
McElroy, Iva Edna.....Flickersville.
Meek, Emory Curta.....Morgantown.
McGlumphy, Charles Bell.....Rocklick.
Meredith, James Alva.....Alma.
Miller, Daniel Warren.....Dilliner, Pa.
Mitchell, Fred Davidson.....Belleville.
Moore, John .....Mannington.
Naret, William Frazer.....Morgantown.
Ong, William Irvine, Jr.....Morgantown.
Parsons, Frances Anne.....Morgantown.
Parsons, William Ewing.....Morgantown.
Peters, Francis Marion.....Iaeger.
Phillips, Claire Mae.....California, Pa.

Poteet, Lucian Euraw.....Red Star.
Plumley, Charles Hunter.....Hinton.
Randolph, Clyde .....Salem.
Rice, Percy Douglass.....Worth.
Rittenhouse, Seymour Tilden.....Dola.
Romine, Carl Ruply.....Johnstown.
Rosenmerkle, John Cleveland.....Morgantown.
Sample, Charles Washington.....Randall.
Sawtell, Archie Leroy.....Wheeling.
Schad, Oscar Frederick.....Benwood.
Schaeffer, Bertha Blanche.....Morgantown.
Schenck, Edward .....Morgantown.
Sembower, Nellie Gwendolyne.....Morgantown.
Skinner, George Thompson.....Morgantown.
Smith, James Henry.....Morgantown.
Smith, Earl Harry.....Fairmont.
Spadaccio, Nicholas .....Morgantown.
Stender, Lee Lawrence.....New Martinsville.
Stenger, Anthony Nicholas.....Morgantown.
Stepp, Pricie.....Warfield, Ky.
Stephens, Joseph Parcel.....Brownsville, Pa.
Straub, Aloysius Wentlen.....Cumberland, Md.
Summers, Pearl .....Mannington.
Sutton, Felix Oren.....Martinsburg.
Sutton, Oley Ford.....Martinsburg.
Swiger, John Russell.....Dola.
Taylor, Robert Kirkride.....Slanesville.
Thayer, Fred Swaney.....New Cumberland.
Truscott, Frederick Wilson.....Morgantown.
Vance, Clark Louin.....Maidsville.
Van Gilder, Lida Edna.....Morgantown.
Watson, Herbert Eugene.....Parkersburg.
Watson, Willie May.....Morgantown.
Weaver, Frank .....Morgantown.
Wharton, Blanche .....Morgantown.
Whitham, Rachel .....Morgantown.
Williams, Edward .....Coaldale.
Willis, William Curtice.....Boothesville.
Woodford, John Woodbridge.....Philippi.
Wood, Florence .....Morgantown.
Wood, George Washington.....Morgantown.
Yeager, M. Louisa.....Morgantown.

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The Preparatory School.

Third Year Students.

Alexander, William Frank.....Mannington.
Baumgardner, William Michael.....Elk Lick, Pa.
Bailey, Bruce .....Tyrconnell.
Berlin, William Markle.....Export, Pa.
Bond, Edwin Sartorus.....Davis.
Cain, Francis Marion.....Arnettsville.
Capito, Henry .....Charleston.
Cox, Boaz Baxter.....Morgantown.
Dawson, Daniel .....Kingwood.
Hensell, Cora Jane.....Ravenswood.
Kunkel, James Harvey.....Morgantown.
Kunst, Frank Batson .....Pruntytown.
Lawrence, Benjamin Franklin.....Athens.
McCutcheon, Alvaro Burke.....Belva.
Newlin, Harold Van Kirk.....McKeesport, Pa.
Osborne, Robert Linn.....Clarksburg.
Parsons, William Ewin.....Morgantown.
Patton, Benjamin Franklin.....Harrisville.
Peck, Herbert Cromwell.....Philippi.
Pierce, Olive Dwight.....Morgantown.
Provence, Nannie Emily.....Morgantown.
Richards, Edgar Ulysses.....New Cumberland.
Scherr, Arnold August.....Eglon.
Shaw, William Roy.....Terra Alta.
Stone, James Frederick.....Point Pleasant.
Trapnell, Richard Watkins.....Charles Town.
Whitehill, Elizabeth Wilson.....Morgantown.
Willis, Amarie.....Bridgeport.
Wright, Mattie Ellen.....Uniontown, Pa.
Zeck, Frederick Van.....Grafton.

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Second Year Students.

Allen, Horace Darwin ..... Ridersville.
Armstrong, Oscar Vance.....Beverly.
Ashcraft, William Harrison.....Triune.
Auvil, Jesse Herbert.....Iaeger.
Baumgardner, Frank Gilbert Haven.....Morgantown.
Bowman, Thomas Armstead.....Valley Furnace.
Boyers, Charles Forrest.....Randall.
Buchanan, Joseph Kerr.....Morgantown.
Cazayoux, Frank.....New Roads, La.
Clark, John William.....Morgantown.

Cooke, Jean Valjean.....Morgantown.
Colebank, George Henry.....Claude.
Compton, Bertha Ellen.....Pedlar.
Cuppett, David Earl.....Glade Farms.
Cummins, John William.....Wheeling.
De Gardeyn, William.....Point Marion, Pa.
Deming, Lee Clarence.....Oil City, Pa.
Dent, Herbert Warder.....Grafton.
Duty, Henry Price.....Pennsboro.
Fetzer, Katherine.....Moorefield.
Gainer, Truman E.....Morgantown.
Hall, Jesse Spurgin.....Morgantown.
Hatfield, Wayne .....Logan.
Hervey, Henry Jacob.....Morgantown.
Jones, Elbert .....Rivesville.
Judy, LaFayette.....Upper Tract.
Kessell, James Everett.....Given.
Kincaid, Della Martha.....Morgantown.
Lemley, Gilbert Southey.....Mount Morris, Pa.
Lewis, John Clyde.....Grafton.
Lough, Maud .....Morgantown.
McMillen, Julius Ray.....Masontown.
McMillen, Russell Hennen.....Masontown.
Miller, Wayne McCormick.....Dilliner, Pa.
Miller, Daniel Warren.....Dilliner, Pa.
Minder, John Barnes.....Ursina, Pa.
Moore, Solomon Granville.....Belington.
Muldoon, Harry Ross.....Elm Grove.
Nestor, Silas James.....Texas.
Peck, Mwood Crim.....Philippi.
Poe, Edgar Allen.....Elkins.
Provence, Millicent May.....Morgantown.
Provence, Lida Ethel.....Morgantown.
Smith, Lewis Camden.....New Cumberland.
Tapp, Elizabeth Louise.....Morgantown.
Tavenner, James Vernon.....Parkersburg.
Tennant, Iris Columbia.....Morgantown.
Varner, Walter Forrest.....Stewartstown.
Watson, Clyde Emil.....Kingwood.
Willis, Jesse Joshua.....Boothesville.
Willis, Floyd Templeton.....Bridgeport.
Wong, Hong Guey.....Kwang Tung, China.
Wyckoff, Ole Everett.....Tyrconnell.

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First Year Students.

Arensburg, Conrad Lawrence.....Heistersburg, Pa.
Atkeson, Mary Meek.....Buffalo.
Atkeson, Karl Clark.....Buffalo.
Baumgardner, Alberta Caroline.....Elk Lick, Pa.
Bailey, Gertrude.....Morgantown.
Barnes, Fred Nelson.....Morgantown.
Bartlett, General Thomas.....Webster.
Bennett, Albert .....Morgantown.
Blair, Smith.....West Union.
Bond, William Thomas.....Morgantown.
Buchanan, Margaret .....Morgantown.
Burchinal, Ira Grant.....Smithfield, Pa.
Burgess, Muss Smucker.....Wayne.
Callaghan, Vincent De Paul.....Connellsville, Pa.
Campbell, George Howard.....Kasson.
Capehart, Carl Arnett.....Morgantown.
Carroll, Robert Milton..... .....Uniontown, Pa.
Clarkson, Joseph Benjamin.....Etam.
Coda, Bartholomew Bascome.....Maidsville.
Darnell, Aaron James.....Lewisburg.
Davis, Ralph .....Morgantown.
Davis, Madge Belle.....Morgantown.
Davis, Bessie Belle.....Morgantown.
Dille, Maude Evans.....Morgantown.
Doolittle, George Leslie.....Independence.
Egbert, Edgar Howard.....North Hector, N. Y.
Finnell, Virgil Carl.....Morgantown.
Flennekin, Fred Cure.....Carmichaels, Pa.
Fogle, Homer Bruce.....Mannington.
Forquer, James Clark McGrew.....Brandonville.
Fravel, Mary Stewart.....Poca.
Gainer, James Ervin.....Morgantown.
Gantz, William Franklin.....Morgantown.
Gantz, Oscar Henry.....Morgantown.
Gidley, Clarence .....Morgantown.
Glick, Louis S.....Morgantown.
Gregg, Bessie Lee.....Morgantown.
Hartley, Charles Alexander.....Ceylon, Pa.
Hawk, Abraham Rogers.....Morgantown.
Heermans, Charles Reeder.....Elizabeth.
Hennen, Robert David.....Morgantown.
Hennen, Anna Belle.....Morgantown.
Hewitt, Frank Ready.....Bramwell.
Hoard, James Luther.....Hoard.
Hughes, Rector Romeo.....Spencer.

Hunter, Liphus Glen.....Morgantown.
Ireland, Bassil Watts.....Morgantown.
Hymes, Sarah Mattie.....Meadowville.
Jamison, Charles Edward.....Morgantown.
Jenkins, Holly .....Morgantown.
Johnston, Walter Guy.....Union.
Kern, William Henry.....Morgantown.
Kime, Loran Garfield.....Morgantown.
Klein, John Ernest.....Oil City, Pa.
Koblegard, Robert Rankin.....Clarksburg.
Koontz, James Andrew.....Morgantown.
Linn, Winona .....Fairmont.
Lindsey, Allen Samuel.....Eby.
Lynch, Charles Alexander.....Bridgeport.
Lynch, William Arthur.....Sand Run.
Marshall, Essie Fay.....Sistersville.
Marshall, Ray .....Adonis.
Martin, Paul Heermans.....Morgantown.
Maxwell, Clay.....Peel Tree.
McCormick, Eugene La Pointe.....Morgantown.
McDonald, James William, Jr.....Darkesville.
McGlumphy, Charles Bell.....Rocklick.
McNeer, Horace Alexander.....Union.
McWilliams, Homer C.....Newlonsburg, Pa.
Miller, Dana Paul.....Morgantown.
Miller, Bertus.....Tunnelton.
Morgan, Charles.....Ringgold.
Moore, Harold Clinton.....Sistersville.
Morgan, Jessie Lee.....Gans, Pa.
Murphy, Joseph David.....Parkersburg.
Murphy, James Scott.....Morgantown.
Newcomb, Laban Moore.....Huntington.
Nestor, Ira Francis.....Auvil.
Ownby, Frederick Hagar.....Morgantown.
Ownby, Monroe.....Morgantown.
Ong, William Irvine, Jr.....Morgantown.
Parr, Herbert .....Sistersville.
Parriott, William Osborne.....Bannen.
Parsons, Dickson Ward.....Morgantown.
Philips, Claire Mae.....California, Pa.
Plumley, Charles Hunter.....Hinton.
Ramsey, Robert Lincoln.....New Cumberland.
Reiner, Elsie Maud.....Easton.
Rittenhouse, Seymour Tilden.....Dola.
Roney, Chester Clancy.....Colliers.

Ross, Justus J.....Simpson.
Ross, Charley Fordyce.....Simpson.
Rosenmerkel, John Cleveland.....Morgantown.
Sanders, Helen Maud.....Maidsville.
Schaeffer, Bertha Blanche.....Morgantown.
Schenck, Edward .....Morgantown.
Sennett, Nora Belle.....Morgantown.
Scott, Stanhope McClellan.....Terra Alta.
Shafer, James Edman.....Laurel Point.
Smith, Walter Orville.....Morgantown.
Spadaccio, Nicholas .....Morgantown.
Stewart, James Vance.....Morgantown.
Stenger, Anthony Nicholas.....Morgantown.
Summers, Pearl J.....Mannington.
Sutton, Felix Oren.....Martinsburg.
Sutton, Oley Ord.....Martinsburg.
Swisher, Claude .....Canton.
Swisher, Scott Neal.....Parsons.
Thornbury, Joseph Walter.....Dunlow.
Thurmond, Walter Rippetoe.....Red Star.
Van Gilder, Lena Gertrude.....Morgantown.
Venable, Ernest Haymond.....Charleston.
Ward, Emma .....Lee Bell.
Warman, Russell McManimy.....Morgantown.
Wharton, Laura .....Morgantown.
Wharton, Blanche .....Morgantown.
Whitham, Rachel Elizabeth.....Morgantown.
Williams, Edward .....Coaldale.
Willis, Arthur ..... .Boothesville.
Wilson, John Marsh.....Pennsboro.
Woodford, John Woodbridge.....Philippi.

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The Department of Instruction by Correspondence.

Allen, Horace D..... Paw Paw.
Arnett, Lonna Dennis.....Moorefield.
Arnold, Walter S.....Hartmonsville.
Bambrick, William Clayton.....Scotland, Pa.
Barbe, Minnie Lee.....Mapletown, Pa.
Baum, H. P.....Brasher Falls, N. Y.
Blackwood, Charles.....Lock Seven.
Bliss, Robert P.....Chester, Pa.
Boston, S. M.....Letart.

Brown, Irvin Carson.....Pleasant Valley.
Brown, Martin .....Sherrard.
Brown, C. C.....Charleston.
Bryant, Stannard .....Gad.
Buckbee, Anna.....California, Pa.
Burns, Thomas L.....Catawba.
Byrnside, M. A.....Burdette.
Caldwell, J. Mentor.....Charleston.
Carrigan, C. E.....Benwood.
Clark, Albert .....Letart.
Colebank, O. O.....Stewartstown.
Conley, Emma.....Fond du Lac, Wis.
Cunningham, D. B.....Beech Grove.
De Foe, A. G.....Weston.
Dils, D. C.....Parkersburg.
Dodd, S. L.....Little Georgetown.
Duffield, W. F.....Byrne.
Easley, D. M.....Bluefield.
Ebers, Charles H.....Benwood.
Edwards, Elizabeth.....Hazel Green, Wis.
Enlow, James Cleetens.....West Union.
Farner, C. S.....New Martinsville.
Fetzer, Katherine .....Moorefield.
Flesher, C. W.....Elkins.
Flynn, Edwin H.....Spencer.
Fortney, Lorain.....Athens.
Freeden, Warden .....Zinnia.
Garvin, J. B.....Wheeling.
Glenn, William John.....Pittsburg, Pa.
Grose, B. F.....Vaughn.
Groves, Alva.....Kesslers Cross Lanes.
Hammersla, Harry Schindle.....Little Georgetown.
Haney, Oliver C.....Halls Mills.
Haught, William .....Elizabeth.
Hayden, Lucian.....New Harmony, Ind.
Hechmer, Frances .....Grafton.
Hechmer, John J.....Grafton.
Heinzel, Henry.....Hudson, Wis.
Hiller, John .....Ona.
Himmler, Charles Frederick.....Morgantown.
Hobbs, Virginia .....East Liverpool, Ohio.
Hollinger, Charles Emory.....Baker, Ohio.
Honaker, Thomas J.....Marshes.
Hughes, Olen B.....Sherrard.
Hughes, Alvaroe Glenn.....Ravenswood.

Ireland, J. J.....Buckhannon.
Jackson, A. M.....Penrith.
Knutti, John Gottlieb.....Fairmont.
Kurniker, Max Waldemar.....Pittsburg, Pa.
Larew, Hiram G.....Tunnelton.
Law, Asby Steele.....Clarksburg.
Legg, A. J.....Alnion.
Lemley, G. S.....Mount Morris, Pa.
Lewellyn, Elizabeth V.....California, Pa.
Lewis, C. E.....Savannah.
Mattison, Samuel.....Charleston.
McChesney, Alexander Gallatin.....Charleston.
McGinnis, T. J.....Clear Creek.
McGlumphy, Walter A.....Rock Lick.
McNeill, Samuel H.....Mercer's Bottom.
Mercer, H. G.....Mercer.
Moats, E. A.....Rusk.
Moore, Jonathan M.....Newton.
Muldoon, John Dement.....Triadelphia.
Mulford, Charles W.....Lynbrook, N. Y.
Phelps, A. V.....Nicklow.
Phillips, W. S.....Calis.
Pierce, Carleton.....Rowlesburg.
Porterfield, Allen Wilson.....Bedington.
Preston, T. J.....Dunlow.
Prevatt, J. Bry.....Kingwood.
Prickett, Lawrence A.....Barrackville.
Probst, Sadie E.....Chicago, Ill.
Richardson, Jessie E.....Newport, Ky.
Ridenour, J. D.....School House.
Rosier, Joseph .....Fairmont.
Salisbury, Edwin Joseph.....Mobile, Ala.
Schmidt, J.....Sherrard.
Scott, D. T.....Bruceton Mills.
Shafer, Joseph P.....Kettle.
Shaffer, Phil Anderson.....Martinsburg.
Shelly, J. L.....Sedan.
Shinn, B. W.....Enterprise.
Simmons, Henry .....Wheeling.
Simmons, Lewis.....Charleston.
Skinner, James Marshall.....Sistersville.
Smith, E. B.....Braggs, Indian Territory.
Strayhorn, Andrew M.....Churchtown, Pa.
Strosnider, Homer.....Center Point.
Sullivan, D. M.....Charleston.

Department of Instruction by Correspondence—Continued.

Tagliahue, Romeo.....Charlotte, N. C.
Taylor, Milton H.....Masontown.
Townsend, T. C.....Fayetteville.
Walker, George J., Jr.....Coaldale.
Warman, Altha.....Montgomery.
Wettach, Charles D.....Allegheny, Pa.
White, F. A.....Leander.
Whitehead, William G.....South Side.
Wicks, Sadie V.....Allegheny, Pa.
Williams, Watkins H.....Scranton, Pa.
Workman, H. B.....Weston.
Wright, Mattie E.....Uniontown, Pa.

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Summary of Students.

Graduate Students		31
College of Arts and Sciences:		
Seniors	29	
Juniors	43	
Sophomores	43	
Freshmen	67	
Premedical Students	32	
Special Students	86	
Total number of undergraduates in College of Arts and Sciences		331
College of Engineering and Mechanic Arts:		
Seniors	9	
Juniors	4	
Sophomores	17	
Freshmen	24	
Total number of undergraduates in College of Engineering and Mechanic Arts		54
College of Agriculture:		
Graduate Students	2	
Seniors	2	
Freshmen	3	
Special Students	14	
Total number of students in the College of Agriculture		21
College of Law:		
Graduates	3	
Seniors	35	
Juniors	76	
Total number of undergraduates in College of Law		114

Summary of Students—Continued.

School of Music:		
Vocal	114	
Piano	43	
Organ	1	
Violin	13	
Guitar	18	
Mandolin	16	
Banjo	5	
Cornet	1	
Total enrollment in School of Music		211
Department of Drawing and Painting		109
Commercial School		133
The Preparatory School at Morgantown:		
Third year	30	
Second year	53	
First year	121	
Total enrollment in Preparatory School at Morgantown		204
Total enrollment of students at Morgantown		1177
Number counted more than once		362
Total number of students at Morgantown		815
Total number last year		644
Increase		171
Total number of students receiving instruction in residence		815
Students receiving instruction from Morgantown by Correspondence		111
Total number of students receiving instruction		926

Summary of Students by States and Countries.

Resident Students at Morgantown.

West Virginia	728
Pennsylvania	58
Maryland	4
New York	4
Wisconsin	2
Ohio	2
Illinois	2
Kentucky	1
Texas	1
Washington	1

Summary of Students by States and Countries—Continued.

Massachusetts	1
District of Columbia	1
Colorado	1
Iowa	1
Florida	1
Louisiana	1
Tennessee	1
China	1
Cuba	2
Total	815

Corresponding Students.

West Virginia	87
Pennsylvania	13
New York	2
Wisconsin	2
Illinois	1
Indiana	1
Ohio	1
Alabama	1
Indian Territory	1
North Carolina	1
Total	111

Degrees Conferred in 1898.

Degrees in Course.

Bachelor of Arts.

Barton, Daniel Jenifer,
Bowman, Stuart Hampton,
Brand, Willa Norvilla,
Deffenbaugh, Walter Sylvanus,
Moreland, Eleanor Brown,
Moore, Bismarck Gilbert,
Post, Arthur Lee,
Pratt, Rachel Evelyn,
Reger, Roy.

Bachelor of Science.

Arnett, Lonna Dennis,
Baker, Daniel Edgar,
Clark, Friend Ebenezer,
Elliott, Charles Shortwell,
Nelson, J. Frank.

Bachelor of Philosophy.

Fast, Richard Ellsworth.

Bachelor of Science in Civil Engineering.

Bruner, William Jacob,
Cole, Harry Outen,
Davis, Frederic A.,
Laughead, Berton Maison,
Leach, Elmer,
McCoy, Charles Ephriam,

Bachelor of Agriculture.

Naret, William Frazier.

Bachelor of Arts in Law.

Dille, Thomas Ray,
Goodwin, Elmer Forest,
Kilmer, Wade Culler,
McCoy, Paul,
Shaw, Harry.

Bachelor of Laws.

Champe, Vernon Corlin,
Chapman, Frank A.,
Corder, John Floyd,
Crile, Lafayette Clark,
Eaton, Harry Anthony,
Ferguson, Henry Creed,
Friedeman, Leon,
Heironimous, Robert Dean,
Ice, William Thomas, Jr.,
Kelso, Arthur Isaac,
Leech, J. Lee,
Lilly, William Riley,
Martin, E. R. B.,
McClaugherty, Bernard,
Newman, Robert Beauchamp,
Shrewsberry, Robert Lee,
Stanley, Amos Oregon,
Reynolds, Edward Bunker.

Master of Laws.

Kenney, Amos E.

Civil Engineer.

Morris, Russell Love.

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